

CHANGING PLANET



Saving Uganda's Lions Through Community Participation

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[Guest Blogger](#)

By Michael Schwartz

Africa's remaining wild lions are facing a number of uphill battles as the continent's human population grows. Nowhere is this dilemma more evident than the Republic of Uganda. A 2013 [survey issued on the Lion Alert website](#) gave a rough estimate of 421 felines.

The [Uganda Carnivore Program](#) (UCP) is a conservation organization dedicated to saving Uganda's lions and other carnivores such as leopards and hyenas.

Working primarily in the country's Queen Elizabeth National Park (QENP), their focus is research and monitoring, and the Uganda Community Carnivore Project, which helps foster working relationships with local communities who live in the vicinity of lions and other dangerous predators.

UCP also works hand-in-hand with the Uganda Wildlife Authority (UWA), the governing body that oversees and manages Uganda's national parks, reserves, and other wildlife and natural resource management areas.

Director Monica Tyler and veterinarian and head of the Uganda Large Predator Project, Dr. Ludwig Siefert, were kind enough to answer some questions regarding the many challenges Uganda's lions are facing and ways in which UCP is helping bridge the gap between rural farmers and the livelihood of Uganda's remaining big cats.



DR. LUDWIG SIEFERT AND SENIOR RESEARCH ASSISTANT JAMES KALYEWA
TRACKING AND MONITORING LION PRIDES IN QUEEN ELIZABETH NATIONAL PARK.
PHOTOGRAPH COURTESY OF UCP.

A big reason lions are facing further decline in Uganda is agricultural development. Where is this occurring primarily in QENP?

UCP: Agricultural encroachment is happening along many of the park boundaries. Our work concentrates on the northern sector of QENP. We see it on the Kasese side of the northern boundary of the park and also on the western side, near Lake Katwe and the River Nyamugasani area.

When the Katwe crater area was taken over by cultivators, it precipitated various conflicts.

Katwe pastoralists lost a substantial gazetted grazing area, which pushed them beyond the boundary into the protected adjacent park area where they are forced to graze their livestock illegally. Livestock depredation is the outcome.

Wild animals also need to access the Katwe salt lake and now they cause crop damage as they are forced to move through cultivated land. Cultivators poach on the edge of park, causing prey loss and aggravating depredation of domestic prey.

There have also been attempts by cultivators from the Rwenzori mountain slopes to illegally occupy and cultivate park land on the periphery of Kasese municipality. This happened as a result of environmental degradation on the slopes which caused flash floods and death. Fortunately, this was reversed by law enforcement officers.



MALE LION 'SANKARA' AT NIGHT IN QUEEN ELIZABETH NATIONAL PARK.
PHOTOGRAPH COURTESY OF UCP.

Encroachment is to be expected in areas with such high human population density—people often have no choice but to expand into the park in order to provide for their families. So we have to support the communities in more sustainable activities.

A great example of this is in the village of Kanyanja, which is located in the northwestern part of the park. They have developed a very successful fish farming business that not only provides food for their own families, but also brings in additional income since they produce enough fish to sell elsewhere.

We've brought leaders from other villages we work with to this community so they can learn how to do this and take the ideas back to their own village.

Of course, agricultural expansion exacerbates human-wildlife conflict (HWC) and crop damage by park herbivores is often a topic of discussion in our community meetings. We've suggested they try many of the measures that have been successful in other parts of Africa. When our funds permit, we provide some assistance to support their efforts. And of course UWA helps the local communities as much as they can as well.

Could you elaborate on your methods of increasing community participation in the conservation of lions?

UCP: Our focus is on sustainable, strategic development of community conservation, in a well planned manner. We facilitate linkages and demonstrate promising ways forward in conjunction with the communities, Uganda Wildlife Authority, and other partners.

Tactically, we increase local community participation in conservation in a few different ways. The most basic method is holding community meetings in order to understand what the main drivers of HWC are and to brainstorm ways we can jointly address those issues.

We conducted a household survey in three villages in and near the park a few years ago. Less than 30 percent of the households surveyed had personally participated in wildlife-conflict meetings. So, we are trying to increase that percentage and see if that has a positive impact on conservation.

Over 80 percent of those surveyed responded they would like to be involved in conservation, which suggested to us the interest is there.

The survey participants had many ideas on how to be more involved in conservation and what could be done to reduce conflict. This provided us with tremendous insight into their perspective.

Almost 80 percent of survey participants provided at least one idea, and many provided several. Not all of their ideas were ones we would endorse, such as to degazette the park or put the wild animals in a zoo. But there were many other ideas that we are able to work with them on, such as conducting seminars to help sensitize the community, involving local villagers in planning conflict management, and providing assistance in building stronger kraals.



MESH WIRING TO PROTECT CHICKENS FROM PREDATORS. PHOTOGRAPH COURTESY OF UCP.

A common idea was to assist local people in finding jobs in the park, and we are working towards this.

One of the most successful methods in increasing participation in conservation so far is supporting villages in developing tourism offerings. UWA already gives 20 percent of national park entry fees to the local communities, which is used for general infrastructure such as schools and health clinics.

We have opened more direct access to local tourism markets for communities and helped them via linkages to partners so they can help themselves.

Developing specific tourist offerings provides additional sources of income that can help to offset individual losses caused by the park's wildlife. This provides a tangible connection between conserving wildlife and increasing personal incomes.

We've assisted local communities in selling their handicrafts to tourists and local safari lodges, and brought in some funding for them to create their own small ecotourism site, where they can talk to visitors about their culture, sell their crafts, and perform traditional songs and dances. A few of the villagers have even begun to host budget tourists on their homesteads.

We've had tremendous support from some of the local lodges and tour companies with these initiatives. We really thank them and their clients for supporting the local communities.

To further strengthen the local communities' involvement in the tourism industry, we sponsor several villagers' participation in "Friends of Queen," which is a business forum led by UWA that promotes tourism to QENP.

Membership is comprised of lodge owners, tour operators, UWA wardens, and local business development leaders. It's been a good way for the villagers to learn firsthand about the park's tourism industry. It is also a forum through which they can express their concerns and ideas directly to many different park stakeholders.

In addition, we also work with the local teachers on environmental education, by helping to add to their standard curriculum and providing a small amount of funding for books, computers, and other supplies.

A fun activity that we introduced to one of the secondary schools was a bird-related citizen science project. The school's environmental club goes out regularly to observe and count birds and then contributes their information to an international database.

QENP is a famous birding hotspot and we thought it was important that local children learn more about their backyard birds that people come from all over the world to see.



LOCAL VILLAGER SHOWING SUPPORT FOR UGANDAN LION CONSERVATION.
PHOTOGRAPH COURTESY OF UCP.

Another example is a community based resource monitoring program. We are still piloting this in one of the villages that has experienced some of the greatest conflict with wildlife.

The idea is to have the local community members be the ones who collect information on wildlife attacks on humans, damage to property, and various ecological data. They are involved in reporting, analyzing, mitigating and preventing imminent or future conflicts.

We assist them in identifying trends so that jointly we might gain an understanding of why and where conflict is occurring. This ideally will lead to the identification of management plans to reduce conflict.

UWA was very supportive of this as they operate on a limited budget and can't be everywhere all the time. The data will help ensure that our limited resources are being correctly directed at addressing the real issues rather than perceived problems.

Finally, we work with UWA to increase the tourism community's participation in conservation as well. Visitors to QENP can book a "lion experience tour" via UWA, during which they go out into the park with us as we monitor the carnivores.

UWA uses the fees they collect from this to increase their conservation work within the park. The tourists get an up-close look at some of the beautiful carnivores we monitor, and learn directly from us about the challenges the animal and human populations face. They come away with a stronger connection to the individual lions and a better understanding of what it takes to conserve them.

These initiatives are a joint responsibility of all local, national, and global stakeholders. Therefore, we partner with universities and institutions globally, by bringing volunteer specialists on board who can provide valuable research services and help in training and implementing plans.



TWO YOUNG LIONS IN QUEEN ELIZABETH NATIONAL PARK. PHOTOGRAPH COURTESY OF UCP.

Approximately how many lions have been lost recently to poisoning and have you been able to dialogue with the farmers who gave them the tainted meat?

UCP: Between 2006 and 2012, we estimate that at least 36 lions were lost due to poisoning in the northern sector of QENP. This estimate represents just under 50 percent of known lion deaths in this area within that time frame.

There were many more lion deaths during this time due to being shot, being struck by vehicles when crossing roads, and being killed by mobs of humans. Many leopards and hyenas were also lost to conflict with humans during this time.

We have talked in depth with one farmer in particular, Eirfazi Wanama, an elder in the village of Hamukungu. He was quoted in *National Geographic's* November 2011 article "[Rift in Paradise](#)".

Since he is a respected and influential elder in this enclave village and also owns a large number of livestock, we knew it was important to work with him and gain his cooperation in our outreach activities.

This began slowly by inviting him to some leadership meetings, where he often sat in silence. Over time, we gained his trust and he opened up and introduced us to others within the village.

We now consider him one of our strongest allies. We are able to talk with him about conflict situations and jointly come up with ways to help address them with the entire community. He helps get the rest of the community on board with our plans, too.

We aren't able to give them everything they ask for, but the discourse has helped in understanding on both sides. Lions still occasionally kill his cattle when they are out grazing, and he has lost chickens and a dog to leopards recently.

He gets understandably upset when this happens, but has shown an incredible amount of patience in continuing to work with us and support conservation efforts.

Are the villages you work in primarily adjacent to or within the park?

UCP: We work with several of the villages in the northern sector of QENP. We have well-established formal activities in Muhokya, which is just along the northern border of QENP, and in Kahendero and Hamukungu, which are both enclave villages within the park.

We also do outreach activities with Katwe, Kasenyi, and Kanyanja, which are also located within the park. We often get calls from other villages as well and would like to more formally roll out our programs elsewhere. However, that is dependent on increased funding.

We work as a "fire brigade" in all enclaves, in neighboring communities and anywhere throughout Uganda upon UWA's request in cases of conflict mitigation and rescue-needs; also on other species as wildlife health service providers.

There have been no known human-caused carnivore deaths in the villages we have directly engaged with over the last three-plus years. This is despite villagers having lost domestic animals to carnivores during this timeframe.

We are ever vigilant though, and continue to identify ways to work even more effectively with the local communities and with UWA.

Would you be able to give an estimate of how many lions are living in QENP, including cubs?

UCP: We estimate there are about 65 lions in the northern sector of the park, where we work. This number fluctuates widely with the cubs.

There are about 21 lions of breeding age. We currently have 13 lions fitted with radio collars, which enables us to intensively monitor much of the population: at least one lioness from each pride, each of the three males in the current ruling coalition, and then also several individual lions, both male and female.

Monitoring their movements enables us to warn livestock owners that lions are in the area and to graze their cattle elsewhere. Of course, this also enables us to monitor and increase our understanding of carnivore health and ecology as well.



SOME OF THE QUEEN ELIZABETH LIONS THAT THE UGANDA CARNIVORE PROGRAM TEAM MONITORS. PHOTOGRAPHS COURTESY OF UCP.

Can you describe ways in which you have helped strengthen cattle enclosures?

UCP: Some of the cattle enclosures in this area are exceptionally weak. It's actually surprising that there aren't more lion attacks. The rural villagers just don't have the funds needed to build stronger ones.

As a small field project, we also don't have the funds to assist all of them with building stronger ones. For enclosures we feel are particularly vulnerable, we've been experimenting with chain-link fences, with a second outer line of protection by thorn-barrier of harvested sickle-bush tied together, and a strong gate.

The elder in Hamukungu that we work closely with has strengthened his kraal by planting these bushes around his enclosure as an extra layer of protection. So, we've tried to show other villagers how they can do this as well, which is a no-cost solution.

We've also provided several hundred sets of solar lights to the livestock owners. We also provide material to repair holding facilities for cattle, goats, and poultry in many different villages.

We are discussing with UWA the possibility of permitting livestock owners in the enclave villages to keep guard dogs, which would be collared and vaccinated so as to reduce the risk of disease transmission to the wildlife.

The dogs would not necessarily scare off carnivores on their own, but their barking would alert villagers to the presence of lions. The cattle owners could then make noise and come out with their solar flashlights, which we also provide, and attempt to scare off the lions.

We are not concerned about these dogs being used for poaching, as that is not part of this Western Uganda pastoral culture.

How does the solar lighting help ward off nighttime attacks?

UCP: The lions, so far, seem to be wary of well-lit areas. We intensively monitor the lion groups in conflict zones. That monitoring, together with camera-trapping, has shown us that the lighting has, so far, prevented depredation attempts by lions, while lions have entered nearby enclosures without lighting.

On the other hand, we are beginning to notice that solar lights might not be as effective against leopards or hyenas. We are still monitoring this and collecting more data points.

Lions are incredibly intelligent. Have you ever had to change your tactics when it comes to building predator-proof barriers?

UCP: We do not expect any barrier, no matter how novel, to prevent a desperately hungry lion from going after cattle. And we are concerned that over time, the lions might become less wary of the lighting and may find a way around the other barriers.

So far, we haven't had to change our tactics yet. We are constantly trying different methods, just in the normal course of brainstorming with the community.

We also keep up-to-date on what other carnivore projects throughout the world are doing to try to prevent attacks. We share these lessons-learned with the villagers with whom we work.

As important as strengthening enclosures is, we've found that listening to and working with the local communities is as important. They know we are sincere in our attempts to help them find ways to mitigate conflict, and this has gone a long way in reducing retaliation against the carnivores.

As mentioned earlier, farmers are still losing their livestock to carnivores, especially when they are out grazing during the day. The farmers have shown incredible restraint and patience in not going after the carnivores.

Agriculture and illegal grazing are the biggest threat to lions aside from plains game poaching, which disrupts the ecological balance. It would seem that local community participation in tourism helps offset this trend. But are there limitations to this methodology, and if so, are there any recommendations that UCP has which could ease HWC tensions and promote a more balanced coexistence?

UCP: First of all, the tourist industry has to cooperate and understand the need to share the benefits associated with wildlife with the local communities who are suffering the losses, throughout the world. We are lucky to work with some really great tour operators who "walk the talk", so to speak.

However, the biggest limitation to encouraging local community participation in tourism is that we can't expect that tourists will go to every village we work with and spend money there, nor can we expect lodges to regularly hire every cultural performance group we work with.

There's a finite demand, especially since they are competing with communities throughout Uganda who are on the regular tourism path. That's why we are working so hard on finding ways other than tourism to increase and encourage human-wildlife coexistence.

We have found the most important way to do that is to listen to the local communities. And listen to all the different groups within those local communities—the local councilors, teachers, student groups, religious leaders, women's groups, livestock owners, farmers, and village elders.

What do they want and need? What are their ideas? And then finding ways to work within the limits our project faces, mostly in terms of funding, to figure out what we can realistically do to help them.

They understand there is no cure-all or magical solution for reducing conflict, but that we want to work with them to explore different options. It requires the work of several groups to help—our project, UWA, the local communities themselves, tourists, and outside partners.

Specific things they have asked for that we are able to assist with are small monetary “consolation” compensation up to about 20 percent of cost for verifiable losses due to carnivores, solar lights for the kraals and solar flashlights for themselves, assistance in case of human injury, monitoring by radio-tracking and camera-traps, and documentation and evaluation of conflicts involving community members.

This has shown villagers that we care as much about their welfare as we do about the wildlife. They are aware of our own limited resources and value the funds we raise on their behalf. That care promotes attitudinal change and we are cautiously optimistic that this will continue to work.

Poverty is one of the biggest drivers of ecosystem depletion. How have UCP and the UWA worked in collaboration to alleviate this in Uganda?

UCP: Yes, we see the impact of poverty on ecosystem depletion daily on our monitoring drives, with the expansion of agriculture and livestock, overfishing in lakes Edward and George, the collection of illegal firewood, and the snares used to poach antelope.

Since QENP is the most visited park in Uganda, we will continue our efforts to engage the villages in tourism. One of our future goals is to expand this by offering training related to improving the quality of food production to international standards, so that local meat and produce can be supplied to tourist lodges and guesthouses and to other markets within Uganda.

We are also trying to increase the overall health of the domestic animals so that there is a focus on quality over quantity. This is a more sensitive activity, however, since some of the cultural groups we work with place such importance on owning large numbers of animals.

Finally, another future goal of ours is to identify more sustainable sources of protein, which we hope would reduce the need to poach. We are exploring what might work best in the areas we work in, but know that raising guinea fowl and cane rats have worked in other parts of Africa.

When we observe something that is working in one village, we do our best to fund field trips there for other communities to learn about and consider whether that would work for them, such as the fish farms.

We offer a platform on which local communities can share information, learn themselves, and offer opportunities for others to learn. Our capacity is very limited but we try to link communities to others who can deliver what we cannot.

Michael Schwartz is a journalist and African wildlife conservation researcher. With field experience across the continent since 2005, his passion for Africa's wildlife is matched by his compassion for the people who live there. A significant portion of his field work is carried out in Uganda, where he studies lion and elephant conservation. You can visit his website at <http://www.michaelwschwartz.com>.



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