

CLAWS CONSERVANCY NEWS



Newsletter

November 2019

Message from the President



Dear Friends,

This has been a great year from CLAWS Conservancy, but the last 6 months have seen significant growth in our flagship lion conservation program **Pride in Our Prides**. In 2019, CLAWS has put theory into practice! Our pioneering Herding Program has begun and the Alert System is

fully automated. With the employment of Dr. Edwin Mudongo and Dr. Keoikantse Sianga, **Pride in Our Prides** has transitioned to a staff comprised entirely of Botswana citizens. The combination of the efforts of Dr. Mudongo and Sianga, along with field assistants Pro Tomeletso and Chris Dimbindo, has led to the first communal herd in Botswana with over 800 head of cattle representing nearly 80% of the cattle in Eretsha Village.



We've also had opportunities to share our experiences in a variety of conferences. Dr. Andrew Stein joined international lion experts at the **Lion Footprint Forum hosted at Disney World** and facilitated by the **Lion Recovery Fund** and **Disney Conservation Fund** in preparation for the release of the Lion King. Dr. Edwin Mudongo has attended and presented on behalf of our program to stakeholders in Botswana and Namibia. Dr. Keoikantse Sianga presented to the Kenya Wildlife Service and the African Lion Working Group in Laikipia Kenya.

Our Wolf program has made some progress in assessing the chemical composition of wolf urine with colleagues at the University of Massachusetts Amherst Biochemistry laboratory. Though we have run the samples, we are now assessing the complexities of the results. With hundreds of compounds present, it is not clear as yet what the active ingredients are for territoriality.

Our program has also begun conversations with collaborators on Grizzly Bears in Montana and Tigers in the Sundarbans of Bangladesh. Yes, that means Lions and Tigers and Bears... and Wolves. Oh My! We look forward to sharing more of the details as these programs develop further in the coming months.

We are so proud and excited to share our progress and we thank you for your continued support!

Andrew Stein, PhD, Founder and President of CLAWS Conservancy



“In 2019, CLAWS has put theory into practice! Our pioneering Herding Program has begun and the Alert System is fully automated.”

***Andrew Stein,
President, CLAWS***



Dr. Sianga participated in the African Lion Working Group meeting in Kenya

In This Issue

- Message from the President
- Herding Update
- Scent of a Wolf
- Lion Updates
- Support Us

Herding Update: A Blueprint For Sustainability

Our Lion Conservation Program, [Pride in Our Prides](#), has evolved into a Community Based Conservation Program through a few key changes. First, we have transitioned to a fully citizen staff. Our program leaders Dr. Edwin Mudongo and Dr. Keoikantse Sianga are both born and raised in Botswana. These accomplished scientists each provide their own expertise in their respective fields, but also experience in government and community engagement from different perspectives. When challenges arise in the community, our team leaders can assess the approaches of government and community leaders to steer our program effectively.



Edwin and Sianga started our herding program by building on the progress of their predecessor Dr. Florian Weise who had facilitated Herder Training courses in Beetsha and Eretsha. Through Florian's leadership, we identified Eretsha as a community willing to try a communal herding program. Edwin and Sianga took the lead, establishing a community committee made up of 10 influential villagers including the chief, headman and chairman of the village development committee. They identified and hired 6 villagers from Eretsha who had attended our herder training course and organized the purchase of the various pieces of equipment necessary to start the program. As word spread, with the endorsement of the village leadership, over 80% of the cattle from Eretsha were committed to our communal herd. This commitment was a major breakthrough in our program because it was the first time that a communal herd was established in Botswana. The communal committee met several times a month to assess grazing conditions and establish a grazing plan that they shared with the herders. Our team are members of the committee but do not drive it, but help steer conversation towards realistic, achievable outcomes.



In May the cattle started gathering, we eventually purchased a mobile livestock enclosure big enough for 1,200 cattle. We slowly collected over 800 head of cattle that needed to get used to living with other herds. The herders use clickers to count the cattle and assess their condition as they leave the enclosure in the morning and when they return in the evening. Since these cattle are monitored and coexist safely with wildlife, our practices are considered 'Wildlife-Friendly'. We partnered with Dr. Erik Verreyne, veterinarian of [Vet and Agri Consultants](#) who assessed the condition of the cattle and suggested treatments for ticks and

dietary supplements for the harsh drought conditions we experienced during the dry season. Cattle owners received this consultation as a donation from Dr. Verreyne. Further, we partnered with Dr. Richard Fynn, a rangeland ecologist from the [University of Botswana's Okavango Research Institute](#), who is assessing the nutrient content of grasses to corroborate supplement needs for the cattle in the program. The Department of Veterinary Services have also stepped up to help administer treatment to the cattle, happy to make a short trip to treat large numbers of cattle- typically a challenge with smaller cattle holdings.

The value of cattle in Northern Botswana is low because they are in the red zone- meaning they interact with wildlife and are therefore susceptible to diseases such as Hoof and Mouth, Bovine Tuberculosis. International markets, such as the EU, have avoided purchasing the beef in the red zone so sales are only available to local markets at a lower price. Today, however, field tests and the storage of the beef have shown that the livestock can be safely raised and treated for these pathogens through programs like AHEAD ([Animal & Human Health for Environment And Development](#)). Further, local tourism companies have pledged to purchase 'Wildlife-Friendly' beef raised in our program at top market prices with a 10% premium. This represents a significant increase in price from what is available today. The demand through these tourism companies far exceed what we can supply with one community and we hope to expand our program to several neighboring communities to reduce conflict, improve rangelands and build capacity within our partner communities.

Lastly, We partner with Conservation International's Herding 4 Health program who help us facilitate Conservation Agreements with the community. These Conservation Agreements give communities the ability to plan the future of their rangelands balancing the needs of livestock owners with long-term environmental health. These conversations are ongoing and provide opportunities for all community members to have opportunities to benefit from this program.



As we assess these ecological responses to our programs and the financial opportunities for livestock owners and administering our program, we seek long-term ecological and financial sustainability across the northern edge of this critical landscape, the Okavango Delta.

What is the Take Away Message in Wolf Scent Marks?



Wolves are great communicators- it is essential for their survival. Through territorial cues such as howls and scent marking wolves retain a closeness with their packmates and advertise their presence and strength to their neighbors. Based on these territorial cues neighboring wolves will assess the risk of trespass or keep a distance. We have been interested in exploring this type of communication as a wolf deterrent in high conflict areas on the ranchlands of Montana.

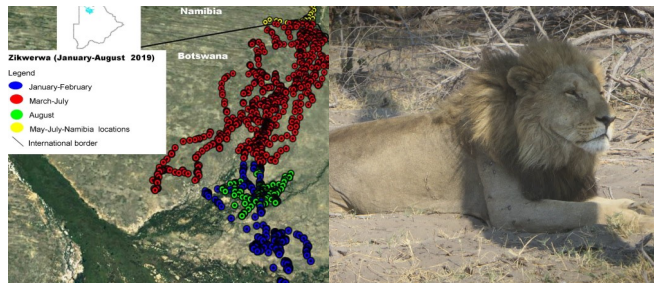
First, however, we need to collect scent. Our colleague, Rebecca Bose at the [Wolf Conservation](#)

[Center](#) in South Salem, New York, helped us trial a scent collection station at the edge of a pack enclosure. The station was made of a 3' x 3' piece of sheet metal with the bottom edge curved up on a slant to collect urine in a small jar. The wolves showed some initial interest in the station, but never sought to mark it. Using motion-sensor cameras, we recorded videos of wolves approaching, sniffing, biting and generally ignoring the station- even urinating on a nearby bush. Instead, we used urine collected from male wolves that were catheterized during annual sperm collections. These 50 samples came from multiple individual wolves and several groupings. These samples were placed in glass jars and frozen until they were ready for analysis.



Second, we transported these samples to the [Institute for Applied Life Sciences at University of Massachusetts Amherst](#). [Dr. Steve Eyles](#) and his laboratory assistance conducted a series of gas chromatography extractions to identify the primary compounds found in each sample. Since there may be thousands of compounds it is not clear whether one dominant compound, several dominant compounds or the mixture of these compounds would elicit the desired avoidance response from wild wolves. Without the capability of identifying all compounds, we plan to review and compare these results to other dog species to assess their similarities and differences for future study. It seems that wolf scent messaging is far more complex that we previously thought. Wolf photo credit: Rebecca Bose

Lion Updates: Zikwerwa's Journey, Mayenga's Cubs, Goodbyes



During our December darting expedition, we were able to add 4 new males and 1 new female to our lion study. Though most of these lions settle in within the study area, one individual Zikwerwa underwent an epic journey through hostile communal lands to our north to reach the Namibian border. He remained in this area for several weeks before returning to Botswana with new scars from shotgun pellets on his right forelimb. He has linked up with another male and remains east of our study area in Selinda.

In late October, we confirmed Mayenga's pride has 3 new cubs! this early stage the females typically keep the cubs from view in thick vegetation. We were able to get a few initial photos but not a full count. We plan to follow up regularly to monitor the growth of these cubs!

Just as we record new life, we were saddened by the losses of lions in 2019. Early in the year, we found Maleherehere had been poisoned with another female from her pride. Maleherehere had taken on legendary status in the villages and many people did not believe that she could have died because they had been tracking her for years.

Wetu also died, but as a result of a lion attack. Two new males entered our study area and attacked her as she was defending her young cubs. New territorial male lions typically kill the offspring of the previous territory holder to bring the females into breeding condition quickly. The females will often avoid these new males as long as possible to give their cubs a chance to develop enough to avoid this fate. Wetu had hedged her bets earlier in the year mating with males from several different groups, a common practice to give all males the impression of parenthood. However, the new males were not in the area at the time and therefore did not fall for her strategy. The losses of females with cubs is particularly sad because we see the future in the little ones. Although Wetu's death was caused by lions, it speaks to a broader challenge we face in conflict areas where stability is lacking. When villagers kill lions, it creates a vacuum filled by newcomers that assert their dominance. Since our start, tragedies like this are fewer but no less devastating.



We need your help! Your support keeps us going.

Our programs are **not possible** without support from generous grants and donors. We thank you for keeping us in mind this giving season!

We are planning our next lion darting expedition in Botswana this January for our Prides in Our Prides program. Darting trips cost upwards of **\$5,000 per lion** and cover vet fees, a collar, and data downloads—all before we factor in staff costs. Each collar provides vital information for our lion alert system, keeps our program running, and keeps lions in the wild where they belong. You can help support this vital work by donating today!

Click the link below to make your impactful contribution:

[DONATE](#)



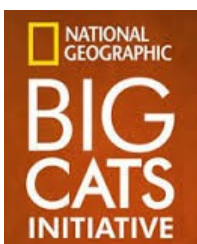
Thank You for Your Support

As with every non-profit, every dollar counts. In wildlife conservation, your money is literally saving lives. Thanks to your generous contribution, we are one step closer to a peaceful co-existence between human and animal. We are one step closer to saving another lion in Botswana, to finding the balance between wolves and ranchers in Montana, to making break-through assessments of leopard populations in the wild, and to support the staff that work day and night to make it all a reality. Our work is

our passion, our expertise, and our calling. Your funding makes all of our efforts possible. We thank you for choosing our conservancy to support, and congratulate you for doing your part for wildlife conservation! Look for opportunities to sponsor our study lions to help our prides grow!

Pictured Prides in Our Prides Team (left to right: Dr. Erik Verreyne, Pro Tomeletso, Dr. Andrew Stein, Dr. Edwin Mudongo, Dr. Keoikantse Sianga. Front: Christopher Dimbindo

A special thank you to some of our sponsors:



Lion
Recovery
Fund

