

International Elephant Foundation
Report on:
Working Dogs for Conservation and South Luangwa Conservation
Society's activities in 2015:

Canine Enforcement to Save Elephants Survive in South Luangwa
Valley, Zambia

Elephant poaching is at an all-time high. Current rates of mortality are driving declines in elephant numbers virtually everywhere they occur. Reversing this crisis will require demand reduction, interdiction of trafficking and transport, and increased enforcement and education across all elephant range states. We are involved in enforcement and community outreach in Zambia, addressing elephant poaching where it occurs in Africa in a critical area for poaching and trafficking of ivory and other wildlife contraband. This is the second year of dog-handler teams combatting ivory trafficking in the Luangwa Valley, Zambia, which represents the last stronghold for elephants in the region and a funnel for trafficking of ivory from the Congo Basin and West Africa, through Malawi into Mozambique and Tanzania for shipment to Asia and elsewhere. Working Dogs for Conservation has partnered with the leading conservation NGO in the region, South Luangwa Conservation Society (SLCS) and Zambian Wildlife Authority (ZAWA) to train and maintain the highest functioning Canine Units for law enforcement activities in the region.

These efforts are increasingly well-integrated with on-the-ground enforcement in the area, making each more effective. Because Working Dogs for Conservation (henceforth:WD4C) is both a leader in the conservation detection dog field and the founder and driver of the Conservation Detection Dog Network for Africa, the benefits of this program will extend beyond the Luangwa Valley and Zambia. Dog teams will work primarily at "snap roadblocks" and rail stations where vehicles will be searched for ivory headed through or out of Zambia. Ivory seizures will increase the cost and risks of poaching and will provide critically-important intelligence for both on-the-ground enforcement and infiltration of international trafficking rings.

WD4C is grateful for International Elephant Fund's support for veterinary care, Zambian handlers and technical backstopping for the newly established ivory trafficking interdiction dog teams. This represents just 16% of the overall budget, which is declining, as the front-loaded costs of establishment and training subside. The greater efficacy and efficiency of detection dogs have made them a cost effective part of routine enforcement activities and dog teams are being established across Zambia, based on the success of South Luangwa Canine Unit's successes. Through sound monitoring, active learning and good communications, our goal is to continue to innovate training, support and integration with law enforcement to maintain this program as the model for others elsewhere in Africa and beyond.

During 2015, our partnership with SLCS has solidified with continued trainings and assessments every quarter by WD4C trainers, veterinary expertise within Zambia and international expertise. Due to the constant threat to the dogs of disease and security risks, kennels, vehicles and protocols

have been improved and the program has expanded and improved with highly skilled handlers and administrative support in Zambia.

Rationale:

The Luangwa Valley is the last stronghold for elephants in Zambia. It has significant conservation value in its own right, with around half of the country's elephants, and it holds the key to elephant population recovery in over 200,000 Km² of intact habitat. The best-protected portions of the Luangwa Valley are North and South Luangwa National Parks, and the Lupande Game Management Area (LGMA), but even these areas have endured significant poaching pressure. Through a unique partnership, the Zambia Wildlife Authority (ZAWA) and the local communities of the southern Luangwa Valley, have made significant strides reducing elephant poaching and all types of illegal wildlife trade. Unfortunately though, the gains of the last decade are at risk from the epidemic elephant poaching driven by the resurgent ivory trade and human / elephant conflict, rife in the region due to agricultural pressure next to protected areas.

Responding to this threat, the South Luangwa Conservation Society (SLCS) enlisted dogs as an established branch of their law enforcement efforts. Canine detection has long played an active role to combat the trafficking of narcotics, weapons and even humans, but only recently have dogs been put to work protecting elephants and stopping illicit ivory trading. Dogs are ideally suited to this challenge, because they are able to quickly check trucks, shipping containers, small vehicles and even passenger busses, which can all be used to smuggle ivory. Dogs are also mobile, which allows them to be deployed to “snap roadblocks” that can be moved unpredictably making it more difficult for traffickers to anticipate or avoid having their vehicles checked. This combination of mobility and efficiency makes dogs more versatile and useful than human inspectors, or even x-ray machines.

Working Dogs for Conservation, the world's foremost conservation detection dog organization, has trained four detection dogs for SLCS, and in June, 2015 we delivered two of these four to complete their training and deployment to protect South Luangwa's elephant population. Seven full time Zambian handlers have been trained and a Kennel Keeper, who maintains the health and wellbeing of the dogs at the kennel. The dogs have become a permanent part of the SLCS enforcement team.

Objectives, Monitoring Procedures and Results:

The overarching goal of this project is simple: to stop the trafficking of ivory leaving the Luangwa Valley. Toward that end, we have met a number of specific and quantifiable objectives, listed below: WD4C and SLCS carried out 320 dog-handler days of enforcement work in 2015 (> 100d/dog-handler team).

We maintained > 90% sensitivity and specificity for all dog-handler teams, based on testing teams by trainers on specific trained targets including ivory, species of bushmeat, ammunition and firearms.

We kept “down days”—days where dogs do not work due to injury, illness or exhaustion—under a total of 48 for the year. However one dog, Earl, exceeded this target due to his sensitivity and

negative reaction to the trypanosomiasis prophylaxis (used every six weeks during the rainy season and every eight – ten weeks during the dry seasons).

Completing >100 dog-handler days per team is a measure of the overall efficiency and operations of each dog/handler team, so it represents an aggregated measure of overall operations. To accomplish it, dogs must avoid injuries and remain disease free, in addition to being well-supported logistically. It is worth noting that these work days do not include rest days within their duty cycles or transit and travel days to reach remote locations. As the Canine Units become more experienced we hope to increase the number of working days each year.

Sadly, one of the first dogs, deployed in 2014, died of trypanosomiasis in early 2015. We all learned a tremendous amount from his illness and this information has been shared across working dogs programs in Africa. This one dog's work and death are already saving canine lives in Africa as our prevention, monitoring and treatment protocols improve (see "Steve" Case history in the Summit Report).

The second objective is for each dog-handler team to maintain high standards for their quality of work. We set 90% as an acceptable threshold for both sensitivity (the probability of detecting smuggled ivory) and specificity (1 minus the probability of a false detection for non-targets). To accomplish these complementary goals, handlers have to conduct ongoing maintenance training. Maintenance training sessions keep dogs sharp and periodically encountering target scents—in this case ivory—even if they do not encounter it during enforcement work. This helps maintain their ability to discriminate the scent of ivory and to detect it at very low levels. Additional "backstopping" for training or handling challenges are conducted with WD4C staff via regular training visits, video conferencing (where training and handling can be observed) and by regular email reports by handlers and administrative staff with WD4C trainers.

The final objective, minimizing down-days, is a measure of handlers' training and judgment in the field. Proper husbandry practices, like keeping dogs cool, taking care of their feet, etc., will ensure that their normally planned duty cycles can be completed. Watching for tick-borne diseases and trypanosomiasis are also critical in keeping dogs healthy and working. Because dogs react differently to trypanosomiasis prophylaxis drugs, one of our dogs has been 'down' due to inflammation at the injection site, thus exceeding our target for down days, however, his work days also exceeded 100. However, we are monitoring his reaction to these necessary prophylaxis drugs and may exchange this dog for another who can better tolerate the treatments. If this occurs, we will move this dog into another work situation outside trypanosomiasis range.

Seizures of ivory and actionable intelligence for enforcement activities are the means to shut down illegal trafficking, and the three objectives outlined above are appropriate insofar as they support those ends. By tracking these objectives, we are able to identify the parts of the program that are working efficiently and effectively, and which need more attention and capacity building in future years. Because this is a ten-year project, and because we are negotiating similar projects elsewhere in African elephants' range, we place a high value on learning from this program and making sure that it is rigorous and replicable.

During May – November 2015, the Canine Unit successes were notable:

At roadblocks, the Canine Unit searched:

- 1487 vehicles

- 123 motorbikes

- 19 suspects were apprehended.

During village and area searches the dogs detected:

- 5 shotguns

- 3 muzzle loaders

- 2 .375 rifles

The .375 rifles were licensed and legal, but the shotguns and muzzle loaders were confiscated.

60 kg's of bushmeat were confiscated, including buffalo, warthog and bushbuck.

20 kg's of marijuana were confiscated.

4 elephant tusks were confiscated.

Project Location

This project takes place in South Luangwa Valley, Zambia, which encompasses South Luangwa National Park, and the Lupande Game Management Area (GMA). The dog teams are based in Mfuwe and operate within and at the margins of the ecosystem, where trafficked wildlife products are smuggled out to air- and seaports.

Methods and Workplan:

The methods used are standard vehicle and container search techniques. Temporary or "snap" roadblocks were established at key road points in and adjacent to the Luangwa Valley. The timing, location and duration of these roadblocks will be known only to senior SLCS leadership to minimize the chance of tip-offs to ivory traffickers. Operational security measures of this kind also protect scouts and other project staff from extortion and external pressures, because it is impossible for them to undermine secrecy.

As mentioned earlier, trafficking interdiction can have tremendous impacts on poaching in local areas, especially when combined with active enforcement in the bush. In cases where middlemen pay local hunters (often poorly), the costs of illegal hunting can outweigh the benefits when the risk of capture is high. Detection dogs make transport more difficult and make it riskier to store ivory awaiting transport, so it is a valuable complement to existing enforcement activities.

Sustainability

To be effective, this program must be viable over the long term, possibly in perpetuity. If we are fortunate enough to witness a global decline in ivory trading, the trafficking of other wildlife products will persist (spotted cat skins, rhino horn, live birds or reptiles, to name just a few), so we are committed to making sure that the dog teams we establish are well-trained and cared for. We expect the highest level of commitment and skills from our partners to include veterinary monitoring and care. We provide committed partnership to our partners and our dogs and will maintain training and equipment for the life of the dog and Canine Unit Program. WD4C dedicated 16 staff person months to this and a sister program in Zambia.