7th Issue March - June 2006

Carnivore News Bites

The newsletter of the Tanzania Carnivore Project

Carnivore of this Issue

By Charles Foley

The Black backed jackal is perhaps the most common large carnivore in sub-Saharan Africa. Small, cunning and very adaptable, these jackals have thrived in human-altered landscapes and can sometimes be found on the outskirts of large cities where they feed on rubbish tips at night. About the size of a small dog, these jackals have a white underbelly, rufous legs and sides, and a characteristic dark saddle on their back. In East Africa they overlap with the other two species of jackal, the Golden and the Side striped jackal. The Golden jackal is a smaller, scruffier animal that lacks any markings on its back, while the Side striped jackal is readily distinguishable by its white tail tip.

These jackals are unusual among carnivores – and indeed among most mammals -in being monogamous, and some pairs have been recorded staying together for over 8 years. When a pair first forms they establish a territory that they may hold for life and that they will vigorously defend against other jackals. Many of the their movements are highly coordinated and activities such as patrolling boundaries of their territory, hunting, and feeding their pups are done together. The infants are generally born in the dry season, usually in an underground den, where they will stay for their first five weeks. After this the mother will move them regularly to different dens to avoid attracting predators until they are three months old when they start moving and

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Project Update

By Alexander L. Lobora

Dear readers,

Once again let me take this opportunity to welcome you to the project update column. Since the last issue of the Carnivore Newsbites, several undertakings took place in compliance with project objectives. The project carnivore database increased by over 1000 sightings, from 4027 sightings in September 2005 to 5113 in March 2006. This is a testament that the project is a contributor-driven initiative and that people can make a great change to the conservation of carnivores in this country if they become involved. Following the increase in sightings, we have recently updated our range maps and therefore welcome every one of you to take a look at the project website (www.habari.co.tz/carnivores) where you will have an opportunity to discover where all the carnivore species are found in Tanzania. For those of you reading this newsletter for the first time, please have a look at our project website for more information about the Tanzania Carnivore Project and don't hesitate to tell us whenever you come across a carnivore in Tanzania.

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Editorial

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Carnivore of this Issue

By Charles Foley

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hunting with their parents. While many predators will kill the pups, the main threat is probably from birds of prey including Tawny and Martial eagles, which have been known to take even sub-adult individuals. The young remain with their parents until they are 6 to 8 months old after which most of them leave to form their own territories. However about 25% of young stay with their parents even when they have reached maturity. These juveniles play an important function as helpers to the main pair, assisting by bringing food for the pups and acting as babysitters while the parents are off hunting. This means the pups tend to be both better fed and less vulnerable to predators than those raised solely by the parents, and research has shown that pups raised in litters with helpers have a much higher chance of surviving to adulthood.

Black backed jackals have a highly varied diet. They will eat rodents, birds, insects, lizards, fish, other small carnivores and fruits and berries as well as taking larger prey such as ungulate calves. In fact they are very successful hunters with success rates of up to 75% when hunting young Thompson gazelles, and there are even records of jackals hunting in a group taking down adult kudu. After a kill they frequently stash the food and return the following day to eat it. They are also avid scavengers and can frequently be seen hovering around lion or hyaena kills, where their high speed allows them to dart in and snatch a mouthful of meat from the carcass without getting caught by the larger predators. They are known to kill lambs and are therefore shot regularly on farms in southern Africa as a pest species, though generally their off-take is limited and they are not considered a major threat to livestock in East Africa.

In Tanzania Black backed jackals are restricted to the northern half of the country though it is currently unclear where the transition boundary is. If anyone has any records of Black backed jackals from the south of Tanzania we would be very interested to receive them so we may determine the range boundaries and determine they coincide with any major physiognomic changes in the landscape.

Project Update

By Alexander L. Lobora

From pg 1

As you might be aware, the project's ultimate objective is to collate data from a variety of sources and provide this to wildlife managers for drafting a Carnivore Conservation Action Plan in Tanzania. In order to ensure that wildlife managers fully participate in the making of a Carnivore Conservation Action Plan process, we planned and successfully held a total of five workshops namely; Wild dog in February 2005, Cheetah in September 2005,Lion, Leopard and Hyaenas in February 2006 and small to medium carnivores in April 2006. Proceedings for the above workshops will form a Conservation Action Plan for Carnivores in Tanzania that will provide a new momentum for a national focus on Carnivores in the country. Once again thank you for making the carnivore project achieve its ultimate objective.

As we come towards the end of the first three years of the Carnivore project with the ultimate objective accomplished i.e. a carnivore conservation action plan document, I must take this opportunity to congratulate my predecessor Maurus January Msuha who was the overall project Manager for the carnivore project and is now a PhD student at the University College of London for all his good leadership and guidance which made the project a success, we wish him good luck in his studies. Without mentioning individuals, I must also thank the project leader and all project staff for their dedicated support during the project lifetime.

The success of the carnivore project brought about blessings to other wildlife species who initially didn't qualify to join the carnivore club (i.e. elephants, rhinos, buffalos, etc). In August last year, we were able to secure funds from the Darwin Initiative of the United Kingdom Government to expand our activities from carnivores to all mammals excluding rodents, bats, insectivores and marine mammals. This new project will be called the Tanzania Mammal Atlas Project (TMAP). This is a three years project which officially started in November 2005. Since then the project has recruited Alexander Lobora as a project manager, Mwemezi Rwiza as a field coordinator, Edwin Konzo as a Database and GIS Analyst, Chediel Kazael as an assistant field officer, Flora Kipuyo as an administrative secretary, Zawadi Mbwambo and Jumanne Ramadhani as project drivers. More about the TMAP project is presented on page 7 and we request you to please continue your support for the betterment of Tanzania's mammals and future generations.

Thank you.

THE SERENGETI CHEETAH GOSSIP COLUMN

By Anne Hilborn

In the cheetah world the old order is crumbling, and new powers are rising. The first sign of major upheaval was in September when the grand coalition of Colin, Owen, and Mr. Paul, who had ruled the Big Marsh and Three Trees area at Ndutu since early 2003 suddenly disappeared. Mr. Paul was seen on his own for a while, no longer in his old territory but closer to the lodge, and for a while we hoped that his two brothers were merely lost or had sneaked off with a female. But that hope faded as they never reappeared, and now Mr. Paul has not been seen since November 2005. This created a power vacuum and there was breathless anticipation as to who would next take over the marsh. Initially there were several contenders, but in the end it went to two cheetahs from the north - Oberon and Puck - two fine young males, non brothers who have formed a coalition. Cheetahs become independent from their mothers at about 18 months of age. For another six months they will stay with their siblings, and at two years of age, the females will leave. If there is more than one male in the litter, the brothers will form a coalition that will usually last for life. However, adolescent cheetahs can be quite fluid in their relationships. Once on their own, they will sometimes try to join up with other cheetahs, particularly adolescents. Puck was the only cub of a cheetah called Ginger, and once separated from his mother, he tried to join Amarula and her cub Muscat. He was soundly rebuffed, and the next time he was seen him, he was with Oberon and his sister Titania. Oberon and Titania are Pecan's cubs, and posses the trademark large well spaced spots of her family – which we call the 'nut lineage'. When he joined them, Puck was distinctly smaller than Oberon who was a very large, handsome, mature looking cheetah. Since then however, Titania has left, and Puck has grown up a bit, and, although still smaller, he no longer looks like Oberon's scrawny younger brother. The two males have now been together for over a year and turned up at the big marsh territory in October 2005, a feat neither of which would have been likely to be able to do alone.

Another favourite coalition that is no more is Mick and Jagger. They had a territory around the Makow road and Twin Hills at Ndutu for years. However, in October of last year, Mick was seen by himself at the Girtasha River near Simba Kopjes looking quite mangy. He was seen a couple of times there, and then in January while all members of the Cheetah Project were at Ndutu, a visitor staying at the lodge showed us photos of a dead cheetah he had seen at the Marsh that day. It was Mick and we went out the next day to find the body. We examined the carcass to determine the cause of death - if a cheetah is killed by a lion, there tends to be scratches along the back from the claws where the lion jumps on it, and puncture wounds in the head. We found only a throat bite and no signs of claw marks which suggests that it was killed by another cheetah. Although we cannot be certain about what happened, it seems likely that he came to the marsh and was discovered and killed by Oberon and Puck. The next time those two were seen, Puck had a fresh slash wound on his right thigh, which indicates that if they did kill Mick, at least he went down fighting.

Despite these upsets amongst the masculine members of the community, the female cheetahs have been churning out cubs. In a period of a couple months at the end of 2005 Peanut, Phoenix, Sphinx, Ginger, Carrie, Angie, Lady Godiva, Kahlua, Fusili, and Carmina all turned up with new litters. It caused quite a flurry of faecal sample collection to try and find out who the fathers of all these cubs are. Although we don't yet have samples from all of them, hopefully the legacy of Colin, Owen, Mr. P, Mick and Jagger will live on in some of the cubs.

THE PEOPLE & PREDATORS FUND:
Project Update

By Dr. Laly Lichtenfeld

In 2001, an in-depth investigation of human and lion relationships in the Tarangire ecosystem began as part of the People & Predators Fund, an organization initially based as a project at Yale University. At the time, conflicts between people and lions outside the boundary of Tarangire National Park were prevalent and widely acknowledged, while little was known scientifically about either the ecological or social factors creating the problems.

Utilizing a unique combination of ecological and sociological field methods, the Fund set out to determine the distribution and abundance of lions both within the national park and in several areas outside the park, encompassing both sport hunting and village lands. To complement this work, detailed structured surveys and semi-structured interviews of the individuals interacting with lions were conducted to assess attitudes toward lions and the problems associated with living and working around these powerful and often dangerous carnivores. Among those kindly contributing their insights were individuals from the Maasai communities, photographic tourism companies, and the sport hunting industry.

Determining the abundance of lions outside of parks, where they face considerable human pressures, is a difficult task. We found Tarangire lions changed their behaviors, becoming more wary and secretive once they moved across the park boundary. Conventional methods of photographic identification became less possible. Instead, we turned to traditional knowledge and enlisted the help of Hadzabe bushmen to conduct spoor counts from road transects, a non-invasive technique used successfully in southern Africa to provide estimates of lion and leopard density. The Hadzabe turned out to be every bit as skillful as we had been led to believe, and their contribution to our work immeasurable. Their capabilities of estimating the age and sex of lion spoor were impressive, reaching nearly 100% accuracy.

The results of our research indicate that there are certainly resident lion prides outside of the park. However, in the wet season, lion density outside the park increases as park prides expand their ranges and move beyond the protected area boundary. As expected, lion densities outside the park never reach the same magnitude as at the height of the dry season in Tarangire National Park. But interestingly, lion densities are nearly two times higher in sport hunting areas than in areas where village communities are found. We estimate that approximately 600 lions reside within 12,000 sq.km of the Tarangire ecosystem.

Conflicts between humans and lions remain prevalent outside the park. We estimate nearly 40 lions are killed per year by the Maasai on the eastern boundary of the park in retaliation for livestock predation. The results of our social investigations indicate that Maasai motivations for killing lions arise from a variety of factors, including the fear and risk associated with living alongside a dangerous predator, cultural traditions, and perhaps most significantly, sentiments resulting from their perceived lack of rights over wildlife and the inequitable distribution of wildlife tourism revenue.

As such, the future of the "Tarangire lion" seems questionable. More and more land in Simanjiro is being cultivated, or at the very least, is plowed to demonstrate ownership of land. While the Maasai have proven themselves capable of living with lions, intensive agriculture and large carnivores do not mix. However, a more positive future can be envisioned if all the stakeholders work collaboratively to develop effective land use management plans that respect the needs of both humans and lions alike.

For more information, please contact Laly Lichtenfeld at Lichtenfeld@people-predators.org

THE FIFTH TAWIRI ANNUAL CONFERENCE

By Alexander L. Lobora

The fifth TAWIRI annual scientific conference took place from 1st to 3rd December 2005 at Impala Hotel in Arusha with the broad theme "People and Wildlife; promoting conservation while balancing needs". The above main theme was supported by five sub themes namely; Human-Wildlife interaction, Biodiversity, Conservation and Monitoring, Wildlife Diseases, Wildlife ecology and behaviour, and Wildlife socio-economics and ecotourism. The conference was officiated by the then Chairman of the TAWIRI Board of Directors Professor Peter Msolla also the Minister for Science, Technology and Higher Education. In his opening speech, Hon. Prof. Msolla commended scientists for their contribution towards wildlife conservation through generation of scientific knowledge but challenged them to also design and conduct research that will contribute towards poverty reduction. He also challenged scientists to ensure that less studied areas such as the southern circuit including Selous ecosystem are also given due attention. This is in line with the research agenda as that will provide information that will contribute towards enhancing conservation of wildlife in these areas.

The guest of honour called upon wildlife scientists to collaborate with medical and veterinary authorities to vigilantly monitor the possible introduction of the bird flue epidemic in the country. According to his speech, this zoonotic disease was first reported in December 2003 in the Asian continent and in particular, China, Kambodia, Japan, Korea and Thailand and of late it has been reported in some European countries including Turkey and Romania.

About eighty-five quality research papers where presented during the three days conference cutting across all the five sub themes above. Unlike the previous four Conferences, the fifth conference brought together about two hundred (200) scientists from within and outside the country. TAWIRI annual scientific conferences aims at bringing together wildlife professionals to chat out their research findings with wildlife managers and the public at large and use the same in solving wildlife related problems. The fifth annual scientific conference was made possible by the courtesy of the Ministry of Natural Resources and Tourism through Wildlife Division, the Frankfurt Zoological Society, Tanzania National Parks, Grumeti Fund, Ngorongoro Conservation Area Authority, Cullman and Hurt foundation, National Environment Management Council and Commission for Science and Technology. The Deputy TAWIRI Board Chairman Mr. Lota Melamari closed the conference on the 3rd December 2005. It is my hope that TAWIRI as a CITES scientific authority in the country will continue to generate wildlife information relevant to wildlife managers for prosperity of our wildlife endowment.

CARNIVORE SIGHTINGS OF THE ISSUE

In the past 6 months a further 1501 carnivore sightings have been added to the database, thanks in large part to our contributing partners. The four data contributing stars of the issue are as follows:

- *Janemary Ntalwila* together with *Ayubu, Naloshoo, Elibariki, Yohana, Luka, George & Isaya* from Ecological Monitoring on West Kilimanjaro who contributed 367 Sightings.
- *Kirsten Skinner* from Serengeti Lion Project with 219 sightings.
- *Claire Lewis* from Grumeti Reserves had 141 sightings.
- *Antonio Sirolli* from Earth Fund contributed 72 sightings

Furthermore the project would like to acknowledge the following contributors for sighting of rarely seen carnivores:

Christian Kiffner from Katavi sent in sightings of Zorilla, African clawless otter and Wild dog.

Pete Copolillo from the Wildlife Conservation Society recorded African clawless otter, Wild dog and Striped hyaena from his base in Ruaha National Park.

Jules Knocker of Nomad Tanzania and Daniel Moore based in Muhesi Game reserve both contributed sightings of Wild dogs.

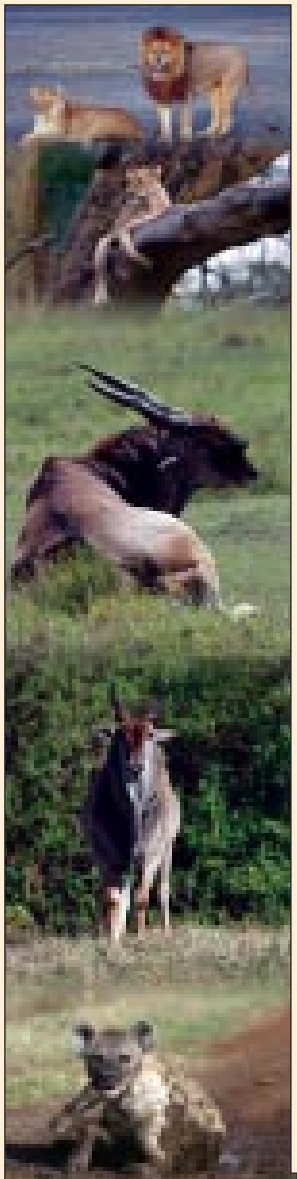
Laly Lichtenfeld of the People and Predators Project based in the Tarangire ecosystem, and *Anne Hilborn* from the Serengeti Cheetah Project both sent in records of Striped hyaena.

Well done to them and many thanks to all of you who sent in your sightings. Please keep them coming!

SERENGETI SAFARI

By Dorine Jansen

In March 2005 almost 70 students, 4 lecturers and other staff descended on Nguchiro Campsite in the Seronera Valley in the heart of Serengeti National Park. We were there to enhance our knowledge of Conservation Ecology as part of our Diploma course of Mweka, College of African Wildlife Management.



When we arrived the days were hot and the nights cold. The first dawn saw a large group of Maasai giraffes ambling by. They were surprised by our presence, and a little started judging by the way they hurried on. Spotted hyaenas soon started circling the camp at night drawn by the smell of food. Baboons included the campsite in their foraging trips. They wreaked havoc on tents that could not be sealed from their dexterous hands. Lions could be heard at night from miles away roaring their presence to all and sundry. And impala bachelor herds kept a shy distance but were never wholly deterred from grazing nearby.

Each day we set out early to conduct field studies. We looked at communities of plants and animals and the way they interacted. We mapped territories of Kirk's Dikdik and identified their favourite browse species. And we defined food webs at a riverine location, to name but a few of the studies.

During all this interesting and enlightening work we recorded carnivore sightings for the Carnivore Atlas Project. We were fortunate to see many lions, a few cheetahs, numerous Spotted hyaenas, a Black-backed Jackal, Golden Jackal, and even two leopards in broad daylight. Unfortunately we also witnessed man's influence in this beautiful ecosystem: a young Spotted hyaena lying by the side of the road paralysed by a run-in with a car. Veterinarians put it down as it was a man-induced injury. It would not have lasted another day without a fellow carnivore finding it an easy meal. A big lion with a gash on his hind leg caused by a wire snare seemed to fare better, although his mane was not as clean as it should have been.

We were treated to presentations at the Serengeti Research Centre at Seronera by carnivore researchers Dr. Marion East, who has been studying Spotted Hyaenas for 18 years in the Serengeti; Anne Hillborn, a research assistant on the Serengeti Cheetah Project and Megan Craft, a researcher of the Serengeti Lion Project which is the second longest running animal behavioural study in the world (Jane Goodall's chimpanzee study being the longest).

The rains that should have started weeks earlier had been announcing their imminent arrival by thunder and lightning and impressive cloudscapes for days now. While Mama Fisi (Dr. Marion East) was keeping us spellbound with her knowledge of the resident hyaenas, the rains decided to break. The world changed into wind and water-swept chaos. From inside the centre's library it looked like it was snowing. The hail and water downpour painted everything white and reduced visibility to barely a metre. Large numbers of zebras and a few wildebeest had sought refuge in the Seronera Valley because the plains were exhausted, providing food aplenty for the territorial lions and leopards. When the rains broke, the entire valley was deserted overnight as if by the stroke of a magic wand. It was a privilege to watch, only slightly marred by the rivers which had appeared out of nowhere in the campsite and now flooded rapidly between and through our tents.

After our nine days studying aspects of the Serengeti ecosystem we returned to Mweka a lot wiser and with valuable data for the Carnivore Atlas Project.

As a final farewell, for the time being, the Serengeti showed us a large pride of lions at least 30 strong - a goodbye in style from this magical ecosystem.

INTRODUCING THE NEW TANZANIA MAMMAL ATLAS PROJECT (TMAP)

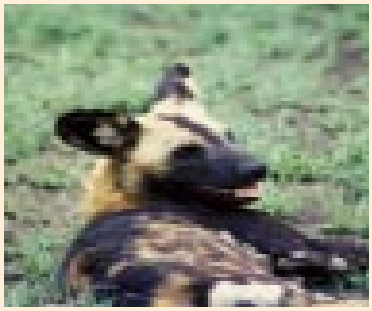
By Edwin S. Konzo

The Tanzania Mammal Atlas Project (TMAP) is a collaborative project between the Tanzania Wildlife Research Institute (TAWIRI) and the Zoological Society of London, with funding from the Darwin Initiative of the British Government. This project, which started in November 2005, will expand on the work of the extremely successful Tanzania Carnivore Atlas Project which many of you are familiar with. During the past three years the Carnivore Atlas Project has received over 5000 carnivore sighting records, produced distribution maps for 34 of the 35 (known) carnivore species, and will shortly have finished drafting action plans for all of the carnivores in Tanzania. The Mammal Atlas Project now aims to gather distribution and abundance data for the remaining 88 non-carnivore species of medium and large mammals in Tanzania, and will use this information to develop national action plans for these species that will detail conservation needs and produce management recommendations.

The Project will operate from the Carnivore Centre at TAWIRI with a staff of six fulltime employees. Just as with the Carnivore Project, data will be collected using a variety of techniques. A field team will carry out intensive camera trapping surveys across the country, particularly targeting forests, swamps and non-protected areas, where currently little is known about wildlife populations. Information will also be gathered from published and unpublished literature sources and from questionnaire-based interviews with local residents. However our main method of obtaining data will still be through our excellent group of supporters and collaborators who have been diligently sending in carnivore sightings for the past three years. Indeed soon we will be sending out a 'Mammal Atlas Pack' which will include sighting check-sheets of all the mammal species that we are interested in, and a map of Tanzania to help locate the position of the sightings, and would again request your cooperation in submitting any records. As always the distribution data will be posted on the web and updated monthly, and there you will also be able to read about our latest findings from our camera trap surveys and access pictures and identification information on how to distinguish some of the more obscure species.

Deciding which species to target in this new project or rather which to leave out was tricky. We realised that rodents, bats and insectivores (shrews and the like) present too many difficulties for people to identify accurately and so would have to be left out. Similarly marine mammals are seldom seen and easy to misidentify so sadly we decided to leave those for another occasion as well. However Elephant shrews were deemed worthy of inclusion, particularly as the larger species are very distinct, and, after much wrangling we decided that rabbits and hares would also be allowed on the list. The cut off point is approximately the 1kg mark the size of a fat hyrax and though we are not officially counting large rodents such as squirrels and porcupines, however, we would not object if people slipped the occasional sighting of these species onto their lists.

In case you were wondering what will happen to the Carnivore Atlas Project, we should mention that it is still fully operational and working to implement the new carnivore conservation action plans, so please keep sending carnivore sightings in. We look forward to your continued collaboration and to sharing more information about mammals in Tanzania.



TANZANIA'S FIRST WILD DOG CONSERVATION ACTION PLAN

By Sarah Durant

The Tanzania Carnivore Program is pleased to report that the first Tanzania Wild Dog Conservation Action Plan has been finalised. This plan was written from the outputs of a two day workshop held at the carnivore centre at the Tanzania Wildlife Research Institute (TAWIRI) headquarters in February 2005, and involved key stakeholders from Tanzania National Parks, Wildlife Division and the Ngorongoro Conservation Area Authority as well as TAWIRI, the host institution. The plan was edited by TAWIRI, but was reviewed by workshop participants to ensure it accurately reflected the views at the workshop. The plan is intended to help guide conservation for wild dogs in Tanzania, however as little is known about wild dogs in the country, it currently centres on information needs.

Everyone at the workshop agreed that there was an urgent need to obtain better information on the distribution of wild dogs across the country. Data contributions from Carnivore NewsBites readers have helped us improve our knowledge of wild dog distribution, however there are still substantial gaps – and filling these gaps is a priority of the Tanzania Carnivore Program. At a regional level, in depth studies in miombo, which probably holds core areas of wild dog distribution in Tanzania, was seen to be a top priority, with managers wanting information on population density and trends in and around the Ruaha complex, and to establish an effective monitoring program in the Selous Game Reserve, which holds the largest known population of wild dogs in the world. In the north, managers were very concerned about reported levels of conflict around the Serengeti ecosystem and wanted information on the ranging patterns of packs as well as population trends to enable them to better understand potential conflict hotspots. Persecution due to livestock depredation was thought to be a major threat to wild dogs in this region as well as in the adjacent Maasai steppe, however in such situations management needs to be founded on accurate information on the causes and extent of persecution, which was lacking in these areas. Other threats thought to be high priorities included disease around the Serengeti ecosystem and the Ruaha complex and death on the roads in Mikumi. Land use change was seen as a threat to wild dog conservation across the country.

Managers need accurate information on the status and threats to wild dogs in their areas to plan management activities and to enable wild dog conservation. This information has, until now, been lacking in Tanzania, to the detriment of wild dog conservation. It is hoped that this plan will provide a new impetus for a national focus on wild dogs that will help address the identified conservation priorities, hand in hand with training and capacity development.

If anyone has any information on wild dogs in Tanzania we would be grateful if they could contact the Tanzania Carnivore Program on carnivores@habari.co.tz.

Participants of the first Wild dog Workshop