In December last year, I was fortunate to visit Niger's Termit & Tin Toumma National Nature Reserve. Established in 2012 to protect the world's largest remaining population of addax, the reserve was created in large part thanks to the efforts of SCF and its partners. My visit took place against a backdrop of chronic insecurity and the impacts of the fall of the Qaddafi regime in Libya. Our ‘passport’ into the area came in the form of a large contingent of armed park rangers, together with a smaller number of regular soldiers. Happily nothing untoward happened and we were able to travel safely and sleep peacefully under the stars.

While setting up the reserve, SCF laid out a series of transect lines across the heart of the addax's domain in the Tin Toumma desert. The lines, 10 in all, make up over 600 km along which wildlife has been regularly censused for about a decade, creating a valuable monitoring tool for both the presence and numbers of addax and the condition of their habitat. Encounters with people, vehicles, car tracks, etc. are also systematically recorded.

In December we drove all 10 transects and several new ones established to monitor wildlife in and around the Termit mountains, especially for what is probably the world's largest remaining population of the critically endangered dama gazelle. Sadly, and in spite of extremely good grazing, we didn’t see a single addax, the only indication of their presence being two old and dusty footprints. In previous years, sightings could almost be guaranteed and it was not unusual to come across the tracks of dozens of animals. What we did see in abundance, however, were the signs of oil exploration taking place in the reserve.

Tracks were everywhere, with huge lorries and desert-going bulldozers seen trundling across the dunes. The massive disturbance caused by oil exploration, coupled with the proven illegal hunting of addax by the military detachments seconded to the petroleum camps for their protection, were without doubt the major causes for the absence of addax. We were left asking ourselves if the remaining addax had moved elsewhere or worse still, had been totally annihilated. The more we travelled the more we became aware of the immensity of the problem and the difficulty of controlling this vast area twice the size of Belgium or Switzerland. With the breakdown of law and order in Libya and the massive exodus of workers there, the entire area was afloat with all-terrain vehicles. Over the past two years several major new tracks have been opened up between Niger and Libya for the illicit trade in everything from drugs, and cigarettes, to arms and human beings headed for Europe. Several of these tracks run right through the reserve.

Hunting of all species is on the increase, weapons abound and the local population, with whom the reserve staff has mostly good relations, is largely powerless to do anything but report incidents back to park headquarters.

SCF is now engaged in an emergency strategy to find the addax and increase support for their physical protection. Without the full support of the government, the military and the Chinese oil companies, however, the efforts alone of SCF and the park rangers will not succeed. Efforts to engage the Chinese and their sycophants in Niamey have so far drawn a complete blank; they are just not interested. And although government is supportive of the reserve, they are not doing enough to build the capacity needed for its management. As for the military, they have so far proved to be the addax’s worst enemy.

Unless significant action and concessions are made in favour of the addax and other endangered desert species it is sadly just a matter of time before we are faced with further extinctions.

John Newby
Surveys carried out by the Sahara Conservation Fund and its partners over the past decade in Chad's Manga region have identified one of the largest known remaining areas used by the critically endangered dama gazelle. Aerial survey is the best method to show if this also means the population is one of the largest known. In early 2015 funds were raised to carry out simultaneous aerial and ground surveys. Ground survey support provides valuable backup. The dama live at low density and critical evidence such as fecal samples, tracks and most important of all, information from the local nomadic pastoralists can only be obtained on the ground.

The aerial survey team flew more than 1000km across the 1200km² survey area. But it was only via satellite phone messages from the ground team that two small groups of dama, two females and a youngster, and a single adult male, were found. The gazelles were not seen on transect but by flying over places where tracks and fresh dung had been seen by the ground crew.

The results suggest that contrary to our original hope, dama here are not widely distributed, instead live in tiny isolated groups. Comparing with observations from 2001-2010, they appear to be being squeezed northward by livestock and human presence into ever more marginal habitat. The ground team reported regular use of the tough twiggy shrub *Leptadenia pyrotechnica*, which would probably not be greatly used if the gazelles had access to better grazing.

On the more positive side, during stops at wells to fetch drinking water, the strong commitment of the local community to wildlife protection and especially for the dama gazelle was apparent. The herders had a good idea of the species’ distribution and were concerned about its protection and the threats it faces.

Sadly, the area being used by the dama, not long ago remote, is these days traversed by heavy vehicle tracks, exposing the gazelles to disturbance and opportunistic hunting. As evidence, the skull of one dama gazelle was found beside the track. Being a naturally shy animal, the dama gazelle avoids human presence and is increasingly finding itself pushed out of its normal range into highly marginal habitats threatened by drought and desertification.

Saving this tiny but globally important, relict population of perhaps no more than 10-20 animals, is going to call for a significant increase in protection, community engagement and a land-use policy that better balances the needs of pastoralists with those of the area’s desert wildlife. A new, Chad-Niger trans-boundary conservation project funded by the EU is timely and will hopefully provide an opportunity to implement some innovative conservation measures in favor of the critically endangered dama gazelle.

Tim Wacher
Thomas Rabeil

**Flight of the dama**
Training for success

Thanks to the generous financial support of San Diego Zoo Global, Saint Louis Zoo and the Weltvogelpark Walsrode, Maimounatou Ibrahim, the site manager of SCF’s ostrich breeding center in Kellé, Niger, recently spent 6 weeks in Germany training in bird care and incubation techniques.

The training course focused on core knowledge and skills in assisted breeding methods, and more specifically the know-how necessary for the use and handling of basic equipment and incubators. In addition to the theoretical aspects of artificial breeding techniques, practical exercises focused on the care of the chicks during the first 3 months of their life. Finally, the course was wrapped up with a visit to a private ostrich farm in western Germany, where the Jeuken family kindly invited Maimounatou to take part in a one-week, hands-on course on the incubation of ostrich eggs, ostrich husbandry and the technical skills needed to run an efficient ostrich farm.

In addition to the practicalities, other helpful insights were gained on the manipulation and preservation of eggs, and the preventative measures and solutions available to fight the viruses and bacteria responsible for egg infertility, thus minimizing the risks of losing eggs in the early stages of incubation.

Now back at home in Kellé, highly motivated and armed with the numerous new skills she has acquired, Maimounatou is already putting them into practice and sharing her knowledge with her staff and others involved in breeding and returning the North African ostrich back to the wild.

SCF would like to warmly thank the staff of Weltvogelpark Walsrode and in particular the Director, Geer Scheres, and his assistant, Simone Ostermann, for making the training course possible. Special thanks, too, go to Mike Mace, Curator of Birds at San Diego Zoo Safari Park, for facilitating this wonderful opportunity. To Maren Frerking and her colleagues at Hannover Zoo also go our sincerest thanks for welcoming Maimounatou and sharing with her the zoo’s unique experience with North African ostriches. Finally, to the Jeuken family goes our great appreciation for the warmth of their welcome and the hands-on experience gained. Like so many conservation projects worldwide, training, skills and capacity building, and constructive partnerships are often at the root of success and the building of sustainable solutions.

Maimounatou Ibrahim

Thomas Rabeil

Mouna Adam Newby
Championing Tunisia

Occupying less than 2% of the Sahara, Tunisia is a relatively small but remarkably diverse country, where nature is influenced by the Mediterranean and the desert. This is exemplified by an extensive network of coastal, wetland, forest, arid steppe and desert protected areas. Many of these sites are internationally recognised and particularly important for migratory birds. Furthermore, during the last 30 years Tunisia’s Direction Générale des Forêts (DGF) has pioneered Saharan antelope reintroductions, supported by Marwell Wildlife, SCF and others from the international conservation community. As a result, national meta-populations of scimitar-horned oryx and addax have been established as part of wider initiatives to protect and restore aridland ecosystems.

Oryx and addax occupy a series of isolated protected areas of limited size in an otherwise densely populated pastoralist landscape. This brings challenges of managing inherently vulnerable populations in balance with available habitat and exacerbated by the erratic nature of desert environments. As would be expected, the fortunes of antelope herds established in each location vary over time as they grow and contract according to prevailing conditions. However, at a national level populations remain healthy thanks to monitoring and managerial intervention when required. Moreover, the results of habitat restoration are more than encouraging as evidenced by the increase in biomass in Sidi Toui National Park clearly visible from satellite images, the mature acacia woodlands of Bou Hedma National Park, and results of studies in Dghoumes National Park. Here, vegetation cover is greater, the plant community is more diverse, and reptiles and small mammals are more abundant than in equivalent areas outside the park.

In addition to these achievements, another significant conservation initiative is now underway: the reintroduction of the indigenous North African ostrich to Tunisia following an absence of 127 years. Young birds were imported from Souss Massa National Park in Morocco in 2008 and from the National Wildlife Research Centre in Saudi Arabia in 2012. After being raised to adulthood in three locations, the ostriches bred successfully in captivity and this allowed the release of initial cohorts into Dghoumes and Sidi Toui National Parks at the end of 2014 and early 2015. These birds are already reproducing while further releases are planned at other sites.

Tunisia faces socio-economic and security challenges like other countries in the region, but political and administrative reforms are showing through. A new national strategy for the development and sustainable management of forests and rangelands has all the hallmarks of contemporary and progressive approaches to conservation you might expect anywhere in the world. With comprehensive plans to extend, restore and conserve natural rangeland resources, and to deliver equitable benefit sharing, there are further reasons to be optimistic for Tunisia’s aridland biodiversity.
Mali’s elephants under threat again

In Sandscript 13 (Spring 2013), Susan Canney wrote about efforts to save Mali’s last remaining desert elephants. Here, she picks the story. Follow the story on Susan’s blog.

From September – December 2014 the security situation improved in the centre and south of the Gourma. The local people have a great deal of information but are frightened of retribution killings. Supporting local leaders in convening meetings to unite the community against the insecurity enabled them to give information anonymously and resulted in arrests, the discovery of large caches of arms and the reintegration of former fighters. This encouraged the army to strategically deploy additional forces, and the security situation improved in the centre and south of the Gourma with fewer attacks and thefts. People travelled more freely and the markets re-opened.

However 19 elephants were killed at the end of December 2014/beginning of 2015 while frequenting the small lakes that still contained water in the remote north of their range. This marked a sudden escalation as local people were contacted by mobile phone from outside the elephant range to act as accomplices in killing elephants. Some elephants changed their behaviour, clumping together into larger herds and fleeing the area. One large group with many babies tried to find water in areas they used to frequent decades ago before they were displaced by increasing human settlement. These areas now contain little surface water and the project sent brigade members to help communities avoid conflict with elephants. The project was able to mobilize a rapid response through coordinating work with the community, government foresters and the military, who took responsibility for anti-poaching patrols, and the killings stopped for a period. Anti-poaching activities are good for people too and the project’s field manager received many calls from local people saying how pleased they were to see army presence.

Then the end of the dry season (with the elephants in the vicinity of Lake Banzena) coincided with an escalation in attacks, that commentators have linked to the signature of the Peace Accord between the coalition of the main separatist rebel groups, pro-government militias and the government, as hardliners on all sides tried to derail the peace process. The patrols ceased and sorties of poachers from north of the river meant 35 have been poached since December compared to 25 in the previous 3 years).

50 newly recruited Malian foresters are currently being trained to man the 10 new forester posts, and a radio-communications system is about to be deployed. The President of the Parliamentary Committee on Wildlife addressed the entire Parliament asking what measures the government will take, and the Council of Ministers will discuss this at their next meeting.

We are currently investigating how to urgently scale-up the anti-poaching capability. There is support from top levels of the Malian army; MINUSMA and UNPOL are keen to help, as are the US Embassy, those associated with the Great Elephant Census (which has just completed its mission in Mali), USFWS African Elephant Fund and the Elephant Crisis Fund.

Susan Canney
The WILDL Foundation
SCF’s mission is to conserve the wildlife of the Sahara and bordering Sahelian grasslands.

To implement our mission, we forge partnerships between people, governments, the world zoo and scientific communities, international conventions, non-governmental organizations and donor agencies. A powerful network with a common goal – the conservation of deserts and their unique natural and cultural heritage.

If you would like to know more about our work and how to contribute to our projects, please contact us at scf@saharaconservation.org. We would love to hear from you!

To donate to SCF just scan the QR code below or visit our website by clicking here.

Sandscript is the regular newsletter of SCF, the Sahara Conservation Fund.

Sandscript is edited by John Newby, who can be reached here with any comments and feedback.

Planning for the future

SCF is at a crossroads. After a decade of intense activity, and with a number of significant conservation achievements under our belt, we have reached full capacity under our initial operational and human resources configuration. With a view to charting out institutional and program development for the next 3-5 years, the Board of SCF has drafted and approved a new Business Plan & Strategy. The document, available online from our website by clicking here, emphasizes our commitment to build on the achievements of the past few years and to remain loyal to our goal and niche of conserving endangered desert wildlife and the habitats and protected areas required for their survival. This “species and spaces” approach will ensure we maintain our focus on critically endangered animals like the addax and dama gazelle, and to maintain our efforts to restore other large birds and mammals, like the ostrich and the scimitar-horned oryx. Success with these target species should also ensure sound protection for many others sharing the same habitats, including bustards, dorcas gazelles and the many Sahelo-Saharan carnivores, like the cheetah, fennec and sand cat. SCF and its partners can be truly proud of what has been achieved to date. In a nutshell, we have firmly put the Sahara’s wildlife on to the conservation agenda, something confirmed by recent and major wildlife policy and status documents of organisations such as IUCN and the European Commission. With the threats to desert wildlife greater today than ever before we are going to need all the help we can get and the Business Plan is there to help guide that process.