



Sandscript

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Birds on a wire: white-throated bee-eater (top) and crested lark (bottom) benefit from the fences of the oryx pre-release pens to hunt insects and sing. Photos: John Newby/SCF.

Welcome to Sandscript 20

For the past decade, Sandscript has been bringing you news and information about SCF, its projects, partners and the challenges it and the wildlife and habitats of the Sahara and Sabel face in this ever-changing world we live in. Issue Number 1 brought news of addax, oryx, dama gazelles and ostrich, species all central to SCF's mission and program. Have the last 10 years seen the status of these and other desert species and their habitats improve or deteriorate?

Personally, I think it's a mixed bag. While species like the addax and the dama gazelle remain critically endangered, measures have been taken to address major threats, including protection of their vital habitat in places like Termit in Niger, Ouadi Rimé in Chad, and the protected areas of Tunisia. Much remains to be done, however.

Thanks in large part to the communications and lobbying undertaken by SCF and its partners, the plight of these species and many others is better known today than ever before and significant funding is now increasingly being made available for their protection and that of their critical habitats.

On the positive side, the recent reintroduction of the scimitar-horned oryx to Chad can certainly be listed as a success, at least in the short term. The article in this issue by Tim Wachter on monitoring the oryx and raising local support for their conservation, is very encouraging. And thanks to our partners the Environment Agency of Abu Dhabi

and the Government of Chad, the oryx project will soon see the number of founder animals sent to Chad reach the hundred mark. Already the animals released into the wild have started breeding and we are confident there will be several new births in the weeks to come.

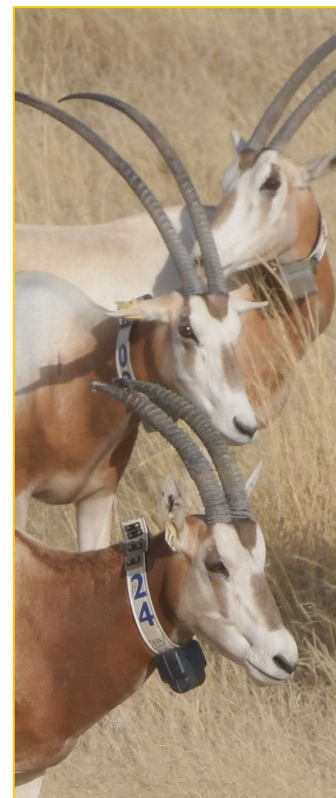
All is not plain sailing, however, the oryx's habitat in Chad and elsewhere in the Sabel is increasingly under threat from phenomena, such as climate change and desertification. Human impacts, such as the spread of agriculture, increase in the numbers of livestock and the wells needed to support them, are also significant, together with the inevitable overgrazing and fire that occur when human population numbers increase in fragile environments. Security, too, is a major concern. The Sabel and Sahara remain extremely vulnerable to the threats from terrorism and the proliferation of firearms. Inevitably, it is the wildlife of wilderness areas that suffers the consequences of anarchy.

While not a research organisation, per se, SCF strongly believes in the value of applied research as a basis for conservation action. It is difficult to conserve something one doesn't know and understand. The article on bustard tagging by SCF's Thomas Rabeil underlines the value of research in helping mobilize resources and conservation action to where birds and mammals are to be found at certain times of the year.

However one weighs things up, we can be certain the outlook for Sahel-Saharan wildlife would be a lot bleaker had it not been for the efforts

of SCF and the vibrant chorus of partners that support its activities and mission. In a new series of articles, we will be focussing on the work of some of our partners, such as the Fossil Rim Wildlife Center, highlighted in this issue.

As 2016 draws to an end I would like to thank all our partners, old and new, for their most generous and loyal support. May I wish you all a Merry Christmas and a very Happy New Year. As they say in French, "la lutte continue", the battle goes on...



Part of the latest batch of oryx from the EAD "World Herd" in Abu Dhabi.



Female oryx, BLU-36, with her calf, here about 10 weeks old (Photo: Ahmed Al Dhaberi/EAD); Outreach and awareness raising (Photo: Tim Wacher/ZSL)



It's a boy!

The first days and weeks following newly-returned scimitar-horned oryx in Chad was a memorable time. Come the day of release in the middle of August, the grasslands of the central Ouadi Rimé-Ouadi Achim Game Reserve were lush and green, signalling widespread and abundant food and water for the oryx. Of course, this also meant good conditions for the traditional seasonal transhumance of livestock from near and far. By the time of the release, numerous camps with herds of camels and small stock were scattered throughout. After all the extensive preparatory discussions, it was clear we were going to learn much, and quickly, about how the oryx would react to the nomads and equally important, how the nomads and their livestock would react to the oryx.

Keeping up with our free-ranging oryx is possible thanks to the work of the comprehensive team of specialists set up by the Government of Chad and the Environment Agency of Abu Dhabi. The latest GPS locations from satellite collars are processed and relayed each morning to the oryx basecamp, from where the positions are also forwarded to the reserve's rangers.

Following release, the oryx moved 50km to the west, where they settled

for several weeks. Only later did we discover they had chosen a place marked by a cluster of observations of the original wild oryx made by John Newby in the 1970s! Quickly, nomad camps began to appear but the oryx remained calm, grazing or resting quietly while camels fed nearby or a caravan passed in the distance.

Throughout this period the monitoring team and reserve rangers travelled widely to meet with nomads. Each time we unrolled posters custom made to assist with staff training and to help generate awareness in the local population, depicting oryx natural history, ageing methods and behaviour in a series of photographs. This provided an excellent focal point while discussing the project and these occasions generated great enthusiasm and very positive feedback while the photos were inspected. Often oryx were well remembered by at least one of the senior members of the group. It was clear that the oryx were coping well with the environment and with the human activities they were encountering, and above all were very welcome back by the local people.

All the while we were watching carefully for the event that marks the beginning of the real transition back to the wild; the birth of the first

wild-born calf. Early on we began to suspect the oldest female, carrying the collar BLU-36, was in calf. Late on the evening of 20 September, after watching all afternoon the herd came close to our vehicle and we saw clearly that she was very large and her teats were very swollen. Early next morning we plotted the latest satellite positions at the basecamp and saw that for the first time since release BLU-36 had separated from the herd overnight. We dropped everything and travelled straight back. We spotted her from 800m, alone and watchful. Again, we spent the whole day, never approaching closer than 500m while she rested or fed, not moving far. The main herd was nowhere to be seen. Only late in the evening did we finally catch brief glimpses of the head and ears of a new-born calf less than 24 hours old, just visible above the grass, standing right in front of its elegant mother. The field team was elated. A very good start to this ambitious project had just been sealed, and as we made our way back to camp along darkened bush tracks we set about texting out the good news by satellite phone.

Tim Wacher
Zoological Society of London

Editor's note: the calf turned out to be a male. Mother and son are doing just fine.





Arabian Bustard Ardeotis arabs fitted with a GPS satellite transmitter (Photos: Thomas Rabeil/SCF and Yves Hingrat/Reneco)

Where's that bustard?

Sabelo-Sabaran bustards are among some of the least studied birds globally. Over the past decade, regular surveys have been carried out by SCF in Niger's Termit & Tin Toumma National Nature Reserve. The reserve hosts two species of bustard, the Nubian and the Arabian. The latter is listed as Near Threatened by IUCN. Bustards in general have become extinct over large areas due to agricultural encroachment, over-grazing and especially unsustainable hunting. Rangers in Termit & Tin Toumma, supported by SCF and its partners, have dismantled bustard poaching networks.

To better understand the biology, ecology and behaviour of the Arabian bustard, SCF has partnered with Abu Dhabi-based Reneco International Wildlife Consultants to conduct the first satellite monitoring survey of wild Arabian bustards in Africa. The main aims are to gather data on the bird's survival, movements and breeding. To improve conservation measures we need to know where bustards go throughout the year, what constraints are there on their movements, and where and when do they breed.

The end of July, 2016, saw SCF's Thomas Rabeil and Reneco's Yves Hingrat counting and trapping Arabian bustards on the western

edge of the Termit & Tin Toumma reserve. Park rangers and staff from SCF partners, the Niger Fauna Corridor and Niger-Chad Transboundary projects, were part of a team that also included four traditional hunters, appointed by the Sultan of Zinder.

Bustard density was relatively high, with around 1 bird per 2 km². July corresponds to the beginning of the bustard breeding season, with males observed displaying and one female located on a nest. The capture technique consists of a line of snares set on the ground between shrubs, which are used by the bustards when hiding from potential threats. The capture technique was both effective and harmless, with birds released after 10-15 minutes, during which body measurements and blood samples were taken, and GPS satellite transmitters fixed. In total, nine adult Arabian bustards (6 females and 3 males) were equipped with transmitters kindly donated by the International Fund for Houbara Conservation.

Currently, eight of the nine tags are still transmitting. One device stopped signalling after a month's activity due likely to equipment failure because there was no sign of poaching or natural mortality at the last location transmitted.

Initial data shows that four of the females moved very little following capture due to incubation and chick rearing in the area where they had been captured. After four months of monitoring, southward movements, first by two males and then by two females, were observed, suggesting a seasonal movement pattern confirming assumptions based on our data from surveys in Niger and Chad.

Our hope is the tagged bustards will continue sending information at least until the next breeding season to get a complete annual cycle of monitoring data to provide estimates on their survival, home range and seasonal movements. Gathering knowledge on the species is important but not enough to reverse the decline in numbers. In many ways, the expertise of the traditional hunters was key to the mission's success. They can also play a pivotal role in raising awareness among local people, including traditional leaders and hunters, about the emergency facing wildlife and especially bustard species. Their participation in the mission was essential in paving the way for long-term collaboration for the preservation of the endangered wildlife in this part of Niger.

Thomas Rabeil
SCF Regional Program Officer





Bushfire in the Ouadi Rimé-Ouadi Achim Game Reserve (Photos: Abakar "Bobby" Zaid/SCF, Marc Dethier/SCF & John Newby/SCF)

Fire

When the scimitar-horned oryx became extinct in the wild sometime during the late 1980s, the causes were clear: traditional hunting, poaching and mechanized slaughter. Some 30 years later, the oryx is being reintroduced into its former range in Chad. And while the threat of hunting cannot be ruled out, far more intractable problems constitute the greatest long-term challenges. Among these is fire.

Over the past few years, rainfall in central Chad has been good. Each year dense pasture has covered the dunes and surrounding plains. The excellent grazing has drawn in large numbers of local and more distant pastoralists and their livestock. With increased numbers of people, however, the risk and incidence of bushfires have also increased. Hundreds of square kilometres of grassland go up in smoke each year, depriving not only nomads but also wildlife of its valuable grazing and cover. Unlike the wetter savannas, Sahelian grasslands are mostly composed of annual plants and do not regreen after the passage of fire. Furthermore, precious green perennials and shade-providing shrubs are also scorched and killed. Without these plants, species like the oryx have no greenery from which to extract vital water or shade under which to escape the ferocious hot

season temperatures. In 2014, the situation was so bad that lack of fodder for gazelles caused a major die-off as animals lost weight and fell prey to endemic diseases such as pasteurella.

In 2016, rainfall and resulting pasture in the Ouadi Rimé-Ouadi Achim Game Reserve in central Chad, were excellent. The oryx released into the wild in August found abundant grazing and were very quickly able to adapt to life in the wild, where water is available only during a very short period of the year. Ironically, though, the wonderful pastures are extremely vulnerable to fire and already many hundreds of square kilometres of bush have burned.

Major causes include lack of care in setting and extinguishing household fires, cigarettes, and the hot exhaust pipes of vehicles traversing the plains. More sinister are fires set by nomads who believe "cleansing" of the land will bring them success during the year to come and purge the land of parasites.

In response to the threat of fire, park rangers and our own project team establish firebreaks around vital infrastructure and the pre-release pens. The entire site is enclosed within a firebreak, cleared by tractor, three kilometres from the

basecamp and pens. We also engage actively in fighting fires when these occur. So far this year, there have been five major fires in the general vicinity of the project's base and this within the space of only a few weeks. The next rains may only come in June or July, with the hottest and windiest times still to come

Without adequate manpower and specialised equipment, firefighting is both difficult and hazardous. When pushed by a prevailing wind, fires can spread faster than a walking man.

If not addressed, fire and the destruction it hawks risk becoming a very major threat to the long term success of the oryx reintroduction project. Not only do we need to know more about the causes of the fires but also increase the already substantial amount of public awareness work amongst the various stakeholders. Equally, we need to beef up capacity to fight fires and to prevent or at least limit their spread. In the coming months we will be exploring a number of avenues, including obtaining technical advice from professional firefighters and acquisition of specialized equipment and vehicles.

John Newby
CEO Sahara Conservation
Fund





Part of Fossil Rim's valuable collections of dama gazelle, addax (top) and scimitar-horned (side) (Photos: FRWC)

Fossil Rim Wildlife Center

Fossil Rim Wildlife Center is a significant partner of SCF, providing both funds to support core operations and technical support for our projects in the field. Over the past few years, staff from Fossil Rim have played a major role in our efforts to reintroduce the scimitar-horned oryx to Chad and for this we are most grateful.

The Center, situated near to Glen Rose in Texas, started life in 1974 as a private wildlife ranch, opening to the public a decade later. In 2000, operations were transferred by the then owner to the current non-profit entity. In 2008, operations were further consolidated by acquisition of the property's land and infrastructure. Covering 1,800 acres of rugged, wooded hills and grassland, Fossil Rim employs 85 full-time staff and in 2016 received 250,000 visitors.

Fossil Rim's Executive Director, Dr Pat Condy, stresses the center's mission to conserve species in peril through captive breeding, scientific research, training of professionals,

responsible management of natural resources, and public education. "Through these activities, we provide a diverse array of compelling learning experiences that inspire positive change in the way people think, feel and act towards nature."

Fossil Rim has always been passionate about the conservation of endangered species, and educating the public about the perils facing them. Many of the center's focal animals are from the Saharan region. Cheetahs have been a major focus for Fossil Rim since the 1980s and over 150 cubs have been born here. Similarly, Fossil Rim has been very successful with many of the ungulates from this region. Over 600 addax have been born since the 1980s. The scimitar-horned oryx was one of the first highly endangered species brought on to the property and in the beginning, it was important for the Association of Zoos and Aquariums to know that this 'ranch' was able and willing to work hard and dedicate the resources necessary to breed and raise its animals. Scimitar-horned oryx,

addax and dama gazelles are all in serious peril in their native range, but they are thriving in Texas and at Fossil Rim.

The center is also dedicated to providing opportunities and education to wildlife professionals. There are currently six different internships to train approximately 20 students a year, mainly in animal care and education. There is also a program in the veterinary department that trains another 8-10 fourth-year vet students annually. Funding for in situ conservation plays an important role as well, and Fossil Rim donates to both the Sahara Conservation Fund and the International Rhino Foundation. Hoofstock curator, Adam Eyres, recognizes that despite all the successes in breeding and rearing endangered and threatened species at Fossil Rim "it is only part of the solution if we can't save the species in the wild and the habitats that go along with them." The partnership between SCF and Fossil Rim is very much geared towards achieving this.



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

SCF is grateful to Tim Wachter, Renata Molcanova, Thomas Rabeil, Yves Hingrat, Pat Condy, Adam Eyres, Kristen Culp, Ahmed Al Dhaheiri and John Newby for their contributions to this issue.

Sandscript is edited by John Newby, who can be reached [here](#) with any comments and feedback.



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](#).



SCF-Europe



On November 5 this year, SCF's Chair, Dr Steve Monfort (above), signed into being Sahara Conservation - Europe. Legally constituted under French law as a non-governmental organisation, SCF-Europe is affiliated to SCF and has been established for a number of strategic reasons. With a legal base in Europe, the SCF family can now more easily apply for European Union funds and those of other European bilateral agencies.

We will also have a European base of operations in the Paris region, as well as a platform for the recruitment of staff in Europe. Logistics apart, the development of SCF's institutional network and outreach will have a very positive impact on our efficiency and effectiveness. At a time when lasting conservation has never been so difficult to achieve, we believe this move will help us improve our effectiveness as our program grows and increases in complexity to match the threats faced by Sabelo-Sabaran wildlife. The establishment of SCF-Europe is an important step for SCF in the context of the organisation's 5-year business plan.

At the signing ceremony in Paris, the majority of SCF-Europe's board members were present and these included Jean-Marie Weber, Roseline Beudels, Steve Monfort (Chair) and Koen de Smet (Honorary Secretary). Both François Lamarque (Vice Chair) and Karen Sausman (Treasurer) were unfortunately unable to attend. John Newby, SCF's CEO, and Thomas Rabeil, SCF Regional Program Officer, were also pre-

sent. Office space for SCF-Europe is currently being sought, and we are also in the process of hiring both a Chief Operating Officer and a Communications Officer.

Support for this strategically vital development, both financially and in terms of sound advice and encouragement, has come from one of our key core supporters, Acacia Partners. We thank them most warmly for their generous help and look forward very much to working with them in the coming years as we reap the benefits of this most ambitious but critically important development.

