

Ostrich Recovery Project in Niger Progress Report January 2017

Birth, Deal & Fire

SCF is trying to save the biggest bird on the planet from extinction. With the exception of a few small savanna populations, the North African ostrich has completely disappeared from its previously vast Sahelo-Saharan range. SCF's North African Ostrich Recovery Project aims to provide the framework, resources and technical support to restore to the wild this highly-adapted desert race of ostrich in Niger. In 2007, the Sahara Conservation Fund (SCF), The Saint Louis Zoo, the AZA Struthioniformes Taxon Advisory Group and a local Nigerien NGO, called CERNK, partnered on a groundbreaking effort to save the endangered North African ostrich and aid its recovery in Niger. Our goal is to produce enough birds at SCF's breeding site in Kellé, Niger to begin returning small numbers of ostrich safely to the wild in 2018.

During the second part of 2016, a crucial deal was reached in-country between SCF, the Republic of Niger, and two additional private holders of North African red-necked stock to implement a national strategy for North African Ostrich conservation in Niger. Another breeding season at SCF's ostrich compound in Kellé has launched, with two breeding pairs hatching out eight chicks before year's end. A catastrophic event was averted when SCF's dedicated ostrich care team thwarted a brush fire with carefully planned firebreaks. And in November 2016, several international SCF partners, including Marwell Wildlife, Smithsonian's National Zoo, Saint Louis Zoo, San Diego Zoo Global and Zoo Hannover, agreed to collaborate on their North African Recovery Projects in Niger and Tunisia, with the goal of facilitating the development of an Action Plan to conserve the remaining populations of North African Ostrich within their historical range.



The 4 chicks of the pair Aicha and Moustapha aged of 3 weeks old

Birth

Both breeding pairs started to display early this season, in August. Males were in full red color and thanks to good rainfall, the lush vegetation present in and around the pens seemed to serve as great source of motivation to breed. By September, two pairs carved out a total of nine nesting sites (four by one pair, and five by the other) in preparation for egg-laying. By mid-October, 18 eggs had been laid, eight by Maria & Aoulaye and ten by Aicha & Moustapha. At the same time, the old male Julien paired with and young (less than three years old) female Salma, her first pairing. They started to mate very quickly and a first set of six eggs was laid by the end of October. This new pair eventually laid 11 eggs total. While none of Salma's first clutch proved fertile, we are, nonetheless, very encouraged by the species-appropriate courtship and egg-laying this pair displayed, as well as their fidelity to incubation Julien is the oldest bird in the center and may not be fertile anymore. He will be kept together with Salma until the end of the breeding season next June to give him one more chance to reproduce. If they produce a second infertile clutch, young Salma will be paired with another unrelated male (Moustapha).

For the other two breeding pairs, eight chicks hatched by the end of November (four chicks each) after 42 days of incubation. The pair Maria/Aoulaye had 50% fertility for this first set of eggs and the pair Aicha/Moustapha reached 40%. This is much better than the previous breeding season, when the fertility rate for these pairs was zero for 39 eggs total. We are particularly pleased by Aicha's performance this year, as she had previously only contributed one offspring to the growing flock.

After a month, one of the Aicha's chicks died. A necropsy revealed compaction due to a huge quantity of citrullis melon consumed by the chick in a short period of time. Citrullis melon is a preferred wild food source for North African ostrich in the Sahara. In retrospect, this chick was the most assertive feeder in its cohort and though the food quantity was controlled by the keepers, they could not prevent this one chick from dominating access to the melons when the chicks are maintained in a flock with their parents. The remaining seven chicks are doing fine under the watchful eyes of their parents, who lead them, guard them and "teach" them as if they were in the wild. In early February, when the chicks reach three months of age, they will be separated from their parents to encourage a second round of reproduction by the adult pairs.

National, Regional and Solar Deal

SCF is not alone in its efforts to breed and restore North African red-necked ostrich in Niger. There are at least two other private holders of ostrich (in Iférouane to the far north, and in Mainé Soroa to the east) attempting to produce chicks. What has been missing until now is coordination of those efforts for the good of the species. SCF, working with the national government of the Republic of Niger, helped to convene a meeting of all stakeholders.



The female Salma enjoying the lush vegetation inside the pen



The male Aoulaye checking his nest with 4 chicks and 4 eggs



The pair Aicha and Moustapha with their 4 chicks

The stakeholders meeting for those working on North African Ostrich breeding and conservation in Niger took place on the 22nd of September in Niamey, and has led to the development of a National Ostrich Conservation Strategy. For the first time, all the stakeholders agreed to work together, and a document has been drawn up by SCF and circulated by the Nigerien Wildlife Authorities.

The strategy is based on the strengths and weaknesses of the three breeding centers in Niger and aims to define a set of priority actions which will contribute to population growth and improved genetic diversity across the three the sub-populations, in the hopes of accelerating the release of the birds into the wild. Through SCF, action is underway to standardize the captive birds' diet on a national scale, train the keepers and site managers at Mainé Sora and Iférouane to give them more autonomy regarding ostrich husbandry and veterinary care, and as infrastructure and experience grows in Kellé, offer artificial incubation service at Kellé to the satellite ostrich facilities, as a way to ramp up chick production in the future.

Niger will also need to look beyond its borders for assistance to improve the demography and genetic diversity of its North African ostrich population. Additional birds from abroad will likely be needed to ensure the success of a long-term reintroduction. Therefore, it has become crucial to implement an international strategy for the conservation of the North African Ostrich with the other range States engaged in the species conservation. SCF and its partners, including Marwell Wildlife, the Smithsonian's National Zoo, the Saint Louis Zoo, the San Diego Zoo Global and Zoo Hannover held a meeting at Marwell Zoo where all agreed to coordinate and collaborate on current North African ostrich restoration efforts in Niger and Tunisia. The immediate goals are to share information and expertise developed in both sites to enhance husbandry and facilitate the exchange of birds (eggs or chicks) between the two countries in the near future, if possible.

Additional collaboration will be sought with other partners from Morocco and Chad. Other points of action discussed included the need for a review the status and taxonomy of the bird, including the possibility to investigate more on the genetics of the North African Ostrich to consider it as a distinct species; the need for a Tunisian, Nigerien and regional management plans for the two next years; and how best to build linkages between the existing initiatives in West and North Africa that will contribute to a global action plan for the North African Ostrich conservation throughout the range States. The preliminary outputs of these actions will be presented and discussed during a specific session of the Sahelo-Saharan Interest Group Annual Meeting in May 2017 in Senegal.

We are pleased this year to report significant progress towards the installation of solar infrastructure at the Kellé site in Niger. A letter of agreement has been signed by SCF with Wildlife Conservation Network (WCN), represented by Stephen Gold. The WCN Solar Project will provide an off-grid turn-key solar electric power system, incubation and hatchery containers, solar water pumping components and various other components to assemble a conservation center for the project in Kellé. The solar system will include all solar modules, inverters, charge controllers, combiner boxes, racks and supports, batteries, wiring and required components.



North African Ostrich National Strategy workshop



One of the containers which will be custom built in San Francisco to become a complete biosecure laboratory



Fire break made all around the pens

The containers for incubation and hatching will be custom built in San Francisco and shipped as complete biosecure laboratories. The remaining systems and components will be packed in individually constructed plywood boxes and loaded into containers in San Francisco. The containers will be shipped in late April from San Francisco (USA) to Cotonou (Benin) and then by road until Kellé (Niger). We hope the solar infrastructures will be operational in time for the beginning of the next breeding season in September-October 2017.

Fire



Last December, a small brushfire was accidentally ignited at the site when sparks from an outdoor brazier being used by one of the keeper's family were dispersed by the wind. The fire started on the northern side of center behind the keeper's house and spread very quickly westward because of strong winds coming from the north-east. Fortunately, the wadi next to the hill at one side and the firebreaks made few weeks earlier by the staff with the technical support of the local forester contained the fire expansion. A minor mistake of inattention, as it can happen sometimes, can provoke a bush fire and have a catastrophic impact on the breeding center and wipe out many years of effort in less than an hour if firebreak planning is not respected. Fortunately, this incident did not damage the facilities nor harm the birds. The site manager has used the incident as a teaching moment, forbidding future use of this outdoor brazier for tea by the keepers and their family.



View from the plateau of the burnt area within the site

Main challenges for 2017

Looking forward to our new partnership with the other satellite ostrich breeding sites in Niger, the Saint Louis Zoo has generously agreed to provide a year's supply of food for the birds at both Iférouane and Mainé Soroa.

With a national strategy in place we now need to redouble our efforts to build on the momentum of this collaborative agreement and deliver tangible "victories". Such progress would go a long way to cementing newly formed partnerships and engendering more stakeholder buy-in.

In 2017, SCF is looking for additional support to fund the following priority actions:

- The recruitment of 2 new keepers for the breeding centers of Iférouane and Mainé Soroa for the next year who will contribute to manage and monitor a self-sustaining population of reintroduced ostrich —> US\$ 5,000 per year
- Secure funds to complete the shipping of solar infrastructures in Niger —> US\$ 30,000 for 2017
- Ensure the Kellé breeding center is fully operational with skilled staff providing appropriate veterinary cares, maintaining the infrastructure and feeding the birds with the recommended diet —> US\$ 30,000 to run the center per year
- Support the organization of a regional workshop to draw up the conservation strategy in a close collaboration with the range States (Chad, Morocco, Niger & Tunisia) involved in North African Ostrich conservation —> US\$ 20,000 for 2017
- Based on the recommendations of the national strategy, translocate birds (chicks and eggs) from other breeding centers in Niger and abroad to increase the gene pool and number of breeding birds —> US\$ 15,000 for 2017

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