Executive Summary

Saiga Captive Breeding Workshop
28-29 August 2017
Institute of Ecology and Evolution of the Russian Academy of Sciences
Moscow, Russia

A two-day workshop was held at the Institute of Ecology and Evolution of the Russian Academy of Sciences in Moscow, Russia, to discuss the practicalities of captive breeding for the Critically Endangered saiga antelope (*Saiga tatarica*). A total of 30 participants attended representing each of the saiga range states and from across the globe. The workshop was interactive, with plenaries, working groups and knowledge-exchange sessions.

The primary objectives of the workshop were to determine how captive breeding can contribute to saiga conservation and how to improve captive breeding.

Two sessions were held on Day 1. The first session set the scene, the second focussed on the potential conservation contribution of captive breeding. The topics covered were as follows:
What role is saiga captive breeding currently playing?
What are the aims of saiga captive breeding at the current and potential breeding centers?
What are the current strengths and gaps in saiga captive breeding?
How do we increase funding for saiga conservation and captive breeding?
What are the specific characteristics that may affect reintroduction strategies?
What lessons can we learn from other species captive breeding efforts?
What new opportunities are there for saiga conservation through captive breeding?

Day One Summary:
It was decided that captive breeding can assist with the overall conservation of the saiga, through breeding for release, education, scientific study and awareness-raising. All proposals for saiga captive breeding should have a clear rationale and a proper strategy, including articulating the intended overall effect on conservation. For example, public awareness and support for conservation may be raised by centers that allow children to interact with saigas at close quarters, but saigas raised in these centers will not be suitable for release. Any successful captive breeding effort requires financial, institutional, and technical support, locally and internationally.

Therefore, before any further captive breeding efforts proceed, a full feasibility study should be conducted, including ensuring local community buy-in, availability and allocation of funds, the existence of appropriate conditions for good husbandry, and the specific conservation aims which the programme intends to address. The rationale for a captive breeding effort should relate to the specific conservation needs of the relevant country and/or region. There is a need to clearly distinguish between reintroductions (into areas where saigas are currently absent) and

reinforcements (into areas where wild saigas are already present) of saiga populations, as the conservation aims and best practice release protocols will differ. In addition consideration should be given to establishing captive populations now while the numbers in the wild are at a point that they can sustain a take for a captive program.

Topics covered on Day 2 were broken down into two parts, firstly focussing on management of captive populations, and secondly considering country-specific priorities:
Part 1:
What kinds of genetic management are needed for captive populations?
Lessons learned from successful captive breeding of saigas within the range states.
Husbandry experiences from other species and institutions.
Part 2:
What is the current status of captive breeding in each country?
What aspects of conservation of the species in the wild might captive breeding support for each country?
Is there a need for more or less focus on captive breeding in the country?
Finally a plenary session wrapped up the meeting, considering the question:
What structures could be put in place for international and national-level cooperation and sharing of best practice?

Day two summary:
It was agreed that the implementation of a studbook at each saiga breeding center, and a feasibility study on exchange of animals between the breeding centers, would help improve the genetic management of existing captive populations. The breeding centers at Askania Nova in Ukraine and the Center for Wild Animals of the Republic of Kalymykia have had very good success with breeding saigas over several years and the best practices in husbandry and management at these facilities could be implemented at the other breeding centers.

Working groups discussed captive breeding and reintroduction by country:
China: In China there is one captive breeding center, which has been going for more than 20 years. It has 170 individuals from 19 founders, with low genetic diversity. The aim is for restoration of the saiga population in China, and so its focus should be reintroduction.

Mongolia: There is no captive breeding program, however there is clear opportunity for captive breeding to support conservation of the Endangered Mongolian saiga sub-species, given the severe threat it is facing from disease and competition for grazing. Nationally, a committee to work on reintroduction and captive breeding, bringing together all stakeholders, is being considered.

Russia: The existing centers support reintroduction, education, public awareness, and scientific research. Some centers can be underfunded and serious attention is needed to solving this problem. A scientific commission (connected to the Ministry) may be useful, for information exchange and scientific support - as exists already for European bison. The focus of cooperation internationally needs to be fund-raising linked to clearly articulated conservation aims, but technical support may also be helpful.

Kazakhstan and Uzbekistan: There are no breeding centers in Uzbekistan, though there is a proposal to start breeding saigas at the Djeiran Ecocenter near Bukhara. In Kazakhstan there are three places with captive saigas (the Ural centre is the main one). Education and research are the main aims for both Uzbekistan and Kazakhstan. Reintroduction is not needed in either country currently; instead the focus should be on wild conservation. A breeding centre in Uzbekistan would

have some value for educational purposes, as is already the case for the Ural centre, but it's not a priority. The Ural centre is in need of funding to support its continued operation.

Several recommendations to advance regional cooperation amongst the saiga holders were made: 1. To utilize the forum section of the Saiga Resource Centre website to share ideas on captive breeding and reintroduction. 2. To investigate the language issue; potentially an automatic google translate facility could be effective for online text, such as in www.conservationoptimism.com, but a translation budget would still be needed for important documents, and it's unclear how to automatically translate emails. 3. To develop a section on the SRC, for storage of documents relevant to captive breeding. 4. To ensure the active engagement of the two key breeding centers not represented at the workshop - Wuwei (China) and Askania Nova (Ukraine). 5. To organize a technical workshop on studbooks and genetic management for the collection holders, including training and support for best practice. 6. To set up a captive breeding network, with a central coordination mechanism and potential for exchanges and best practice training. 7. To develop a standardized protocol on collection of genetic samples. 8. To work together to raise the profile of saiga captive breeding and to develop sources of sustainable funding for conservation-relevant captive breeding, particularly through engagement with the wider zoo community in Europe and the USA.

A full detailed report of the workshop is available here