

SAIGA NEWS

Providing a six-language forum for exchange of ideas and information about saiga conservation and ecology

Using embroidery to address saiga poaching on the Ustyurt Plateau

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Poverty and unemployment are key drivers of illegal saiga poaching. On the Ustyurt plateau limited employment opportunities make the financial gains from saiga hunting attractive to poor individuals. Poverty is also likely to be encouraging the local consumption of comparatively cheap saiga meat.

Saiga Conservation Alliance has supported the development of two embroidery centres that teach traditional techniques to women in the villages of Jaslyk and Karakalpakia. These centres provide a business structure through which embroidery products can be sold and also act as educational centres teaching local people about saiga conservation. Women control local household budgets and it was hypothesised that, as a result of increasingly positive attitudes and an additional income source, women would neither want to buy saiga meat, nor be financially required to do so. A secondary benefit was predicted to be that women who were involved in the scheme would discourage their male relatives from involvement in saiga poaching.

An analysis was undertaken to assess the progress of the scheme towards its goals. The analysis considered the strength of the scheme as a long term self-sustaining program and its conservation impact (Table 1).

Profitability and market demand: At the moment the embroidery scheme is still relying on grants from the SCA to cover its costs. Profitability could be increased through improved market demand for the products produced.

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Currently the items produced are sold through the embroidery centre in Nukus, an embroidery shop in Tashkent and at the Wildlife Conservation Network Expo. The women involved in the embroidery programme produce various high quality items worthy of a higher price than they are currently receiving and it is likely that more profitable markets, perhaps in Europe or the USA, are available.

Infrastructure: The embroidery scheme benefits from relatively small start-up and running costs. The Jaslyk group used a classroom in the village school whilst the Karakalpakia centre relocated to a new room that will be able to accommodate around 20 embroiderers.

Local skills and complexity: This is another area where the scheme scores well. The activity is highly culturally suitable and embroidery is a popular activity amongst Uzbek women of all ages. The embroidery programme has low levels of complexity, as it is dependent on readily available materials and local knowledge. Projected future complexities might arise from transporting the products to a suitable market when it has been identified.

Linkage to conservation: Currently the embroidery centres seem to be placing a stronger emphasis on traditional culture and local identity then the more difficult task of integrating saiga conservation goals into their work. Only three embroiderers who were interviewed identified a reduction in the poaching of saiga as a key goal of the scheme and none of their adult relatives highlighted this as the major reason for the scheme's existence.



Table 1.

The ability of the embroidery alternative livelihoods scheme to meet criteria indicative of a successful community based conservation scheme. The areas of the intervention that require attention are indicated by bold text.

Factor	Good Prospects	Bad Prospects	Embroidery program
Enterprise			
Profitability	More than covers costs	Does not cover costs	Does not cover costs
Market demand	Moderate	Too high or too low	Too low
Infrastructure	Good	Poor	OK and Improving
Local skills	High	Low	High
Complexity	Low	High	Low
Linkage to conservation	High	Low (or not perceived)	Not perceived
Benefits			
Cash benefits	Moderate	Too high or too low	Too low
Non cash benefits	High	Limited	High
Distribution	Targets those conserving	Too broad / wrong people	Not reaching women with household influence
Stakeholders			
Leadership	Balanced & respected	Absent or too strong	Balanced & respected
Homogeneity of group	Complete	Limited	Strong
Conflict	Absent	Present	Absent
Other			
Project alliance	Experienced & Established	Otherwise	Established

No respondents said that a financial benefit for participant's families was the number one goal. It is clear that the principal objective of saiga conservation could be emphasised to a greater degree. A former member of the Jaslyk embroidery group who had been involved for a year until she got married asked "So what is the link between SCA and embroidery, how does embroidery help saiga?" Making the objectives of the scheme clearer to participants is a key first step towards making the embroidery scheme work for saiga conservation.

Cash benefits: As a result of limited local markets the financial income embroiderers are receiving is limited. The hand-stitched products require a large time investment for small financial returns. "It is not a big amount of money that the girls make, just a little extra cash." The cost of switching from saiga meat to beef, depending on the quality of the meat purchased, is between 36,000 Som (~\$18) and 84,000 Som (~\$42) per month. These figures were calculated from data given by families with an average size of 4.

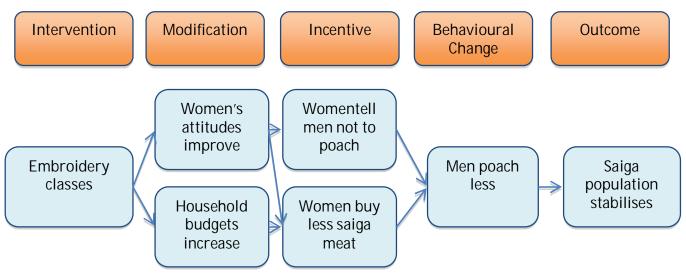


Figure 1.

Hypothesised causal links for the alternative livelihood engagement strategy



A member of the Jaslyk embroidery group shows off some of the hand stitched mobile phone covers the group has made.

The mean family size of all participants in this study was 5.5, and the mean additional income from embroidery around \$10 per month. The money currently being earned by the scheme's participants therefore is currently insufficient to enable them to switch from buying saiga meat to beef.

Non-cash benefits: Crucially the participants were extremely positive about the embroidery group, were happy to be involved and saw it as a fun activity.

Distribution: The majority of embroiderers are under 18 and still at school. Former embroiderers mentioned that their principal reason for leaving the scheme was a lack of time as a result of marriage. This is an issue as women in the Ustyurt tend to marry in their late teens or early twenties. It is only after this that they begin to have some control of household spending and could make decisions regarding meat purchases and the activities of their male relatives. Currently participants are leaving the embroidery programme just as they become capable of undertaking the actions that the scheme's goals are based on.

There are also few participants from the poorer households that are most associated with saiga poaching and more likely to be responsive to alternative income sources. In Karakalpakia wider advertising of the scheme led to a more diverse group of participants including middle-aged women and people from poorer districts and areas suspected to have a number of poaching households.

Leadership: Leadership is a key strength of the scheme. The leaders are passionate and driven and have an interest in saiga conservation. The local leaders have created a strong relationship with their groups and show a keen interest in expanding the program grows into a viable business. "If there is a big crowd I can do 2 lessons a day with 20 pupils at each lesson. I'm open 5 days a week".

Homogeneity of group and conflict: Those currently involved in the embroidery scheme form a harmonious group who enjoy attending the embroidery centres as much for the social aspects of being engaged in the programme as for learning embroidery skills. Local people were glad to see external organisations taking an interest in the area and helping to establish a meaningful project. Political support for local development is present.

Project alliance: The alliance between the Nukus-based embroidery centre and scientists focused on saiga conservation has grown into a long-term association. There is no reason to assume that strong and lasting relationships cannot be developed which will benefit all of those involved in the programme.

Whilst the financial side of the scheme is in need of attention and a greater effort should be made to ensure the scheme's potential conservation impacts are realised, there are positive signs. The project has strong foundations as a result of its committed leadership and the enjoyment the participants gain. Buy building on these robust foundations the scheme can have an important role in conserving saigas within Uzbekistan.



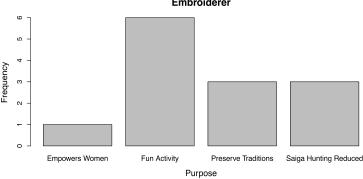


Figure 2.

The perceived main purpose of the embroidery scheme according to embroiderers and their adult relatives. Respondents could chose from five answers including "It provides additional income for a family"; no respondents selected this answer.

Updates

The fight against poaching

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Over the first 10 months of 2012, in the saiga range areas of Kazakhstan, 24 instances of saiga shooting, purchase or trade in saiga horns were registered, as well as the confiscation of 131 carcasses and 5,486 horns (mainly old horns collected in the field). These statistics, as well as advertisements from traders wishing to buy horns published in electronic and printed media, are indicative of the existence of an illegal market in saiga products within Kazakhstan and smuggling of these products overseas. All these negate the effectiveness of the saiga conservation measures undertaken by the State.

The Decree of the Government of the Republic of Kazakhstan dated July 25, 2012, № 969, imposed a ban on the use of saigas, their parts and derivatives up to 2020 within the entire territory of the Republic of Kazakhstan. The Committee for Forest and Hunting Management, together with the Police Administrative Committee under the Ministry of Internal Affairs, inserted additions and amendments in the Criminal and Administrative Codes of the Republic of Kazakhstan.

As a result of this strengthening of the regulations, 18 criminal cases were initiated in 2012, compared to only 12 cases in 2011. In one such case, on July 19th 2012, poachers were sentenced to 2 and 2.6 years imprisonment by Karmakshi district court, Kyzylorda region, for saiga poaching in April 2012. In addition, a vehicle used during the poaching was confiscated. Likewise, Aitekebi district court, Aktyubinsk region, sentenced two poachers to 2 years in a penal colony on October 8th 2012, for shooting 63 saiga in June 2012. Two Toyota Land Cruisers, guns and other items were confiscated.



Given the social importance of preventing violations of environmental legislation, the Committee deemed it necessary to cover the legal proceedings of cases of poaching in the media, showing how criminals are held responsible for their actions.

Editorial note: Since this update was written, new saiga poaching incidents were reported in the media, including under this new legislative framework, involving 50 reported saiga carcasses.

Working life in the Stepnoi nature reserve

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2012 has been a very important year for the staff of the Stepnoi state nature reserve. The reserve turned twelve (it was created in 2000 under a resolution by the Governor of the Astrakhan region A.P. Guzhvin), and we have taken this opportunity to review our achievements to date. Over this period, the reserve's staff have established a reputation as a well-organized, professionally trained group firmly committed to the fight against poaching and to the protection of the saiga and other inhabitants of the area which we

oversee. The anti-poaching activities that we conduct have resulted in reductions in the rate of illegal intrusions into the reserve. Poachers know that our team will prevent them from killing saigas.

Along with patrolling, the reserve's personnel devote attention to environmental awareness and education both of the people of various ages living in the Astrakhan region and of numerous guests from other regions of Russia and abroad.



The Stepnoi team with E.J. Milner-Gulland during her excursion to the nature reserve.

We regularly inform farmers living within the reserve information about observing and strengthening the protection regime. These discussions are bearing fruit; the number of violations of the reserve's rules is lower than it was in the first few years of the reserve's existence. We have managed to establish friendly working relations with farmers, and many have become voluntary saiga observers.

Throughout the years, our staff, together with colleagues in the Ministry of Nature Resources and Environmental Protection of the Republic of Kalmykia and the Chernye Zemli nature reserve, have actively protected saiga herds during calving. In spring 2012 we did not let anybody disturb the animals during calving, which mainly took place within the Stepnoi reserve.

A very significant event this year was our being awarded a small grant in the competition organized by the Saiga Conservation Alliance with financial support from the United States Fish and Wildlife Service (USFWS). In the rather tough times of the current economic crisis, this support has contributed to improving the reserve's equipment (we acquired a Patriot car and a Suzuki motorcycle) and increased the number and effectiveness of our anti-poaching raids. As part of this project, we published a colorful booklet about the nature of the Stepnoi reserve, which has contributed to the improvement of our organisation's image among the local population.



Saigas in Stepnoi reserve.

In addition, the grant confirmed that our work is absolutely necessary and is highly valued by our colleagues and by conservation donors.

Under the resolution of the Government of the Astrakhan Region, the Stepnoi reserve's 87,000 hectare area is split into two zones; a zone for sustainable land use (34,000 ha) and a zone for saiga conservation and reproduction (53,000 ha) where livestock grazing is completely forbidden. In July 2012, the Stepnoi reserve received a Certificate from the Russian Federation giving it the unlimited right of use of the land in the 53,000 ha saiga conservation zone. This enables us to ensure that the saigas are not disturbed by human activities in this zone.



Anatoly Khludnev with schoolchildren.

This year, numerous guests - tourists, journalists, scientists - have visited the nature reserve. Especially important for us was the visit of the Chair of the Saiga Conservation Alliance Professor E.J. Milner-Gulland, who evaluated our work highly, saw a saiga herd of about 1,000 head with her own eyes, and discussed with us our plans for further work on saiga conservation and engagement of the local population, who we seek to make into friends of the saiga and our reserve.

In July, 2012, the Zoo TV channel, under the auspices of the International Foundation for Animal Welfare (IFAW), shot three films in a series about the saiga and the people who take care of them, in the Stepnoi reserve and in the Centre for Wild Animals of the Republic of Kalmykia (see the update below). The first showing of the film took place on the Zoo TV channel at the end of October 2012. In August, 2012, we were visited by a photographer and reporter from GEO magazine, who plan to publish an article about the nature of the reserve and our work.

In conclusion, we would like to note that we heartily support the efforts of our colleagues who protect this wonderful antelope in other parts of its range. For our part, we will apply our best efforts so that this unique species does not disappear from Russia

Saiga: A true-life story for a movie

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A year ago, the Zoo TV Channel shot some films about wildlife as part of a special project called "We Care". As a result of its longterm cooperation with the International Foundation for Animal Welfare (IFAW), in summer 2012, the TV channel again got a chance to take pictures of wild animals. This time our film crew managed to get to the steppes of the Astrakhan region and Kalmykia and catch sight of the rare saiga antelope. In this trip, Elena Zharkova from IFAW coordinated our trip, gave interviews and acquainted us with the right people, perfectly complementing our tried-and-trusted film crew.

The Stepnoi reserve and its heroes

Anatoly Khludnev, Director of the Stepnoi reserve, met us in Astrakhan and drove us to the steppe. Based on our experience of other expeditions, we expected to see a permanent camp where all the rangers were stationed. However, members of the anti-poaching team actually live in their "combat" vehicles, which are equipped with all the necessities for a few days of independent living in the steppe.

Within a few hours, when we were looking for a camp site, we roused two baby saigas lying still in the grass. In order to take pictures of saigas, we would get up before dawn and erect a field shelter near the saigas' watering place. During one of these vigils, which lasted more that eight hours, we were rewarded by seeing female saigas with babies coming up to the artesian spring at hourly intervals. Later, when recalling our trip, we agreed that the most exciting moments were those of breathless expectation, when you are looking intently at the horizon and wait every second for a golden yellow pelt momentarily dashing through the grass. When you see yellow dots approaching you in a flickering heat haze through the binoculars, then they change direction and disappear into the steppe again. When saigas emerge from a completely unexpected direction and, all of a sudden, appear in front of your camera.

In the evenings, we discussed our filming with Anatoly Khludnev's colleagues, listened to long and not very happy stories about the saiga and realized that the fates of saigas and people have long been inextricably interwoven. Anatoly Khludnev is an exceptional man, not just a Director with a list of duties, but a true master of the reserve. He values this nature, this land and country highly; the endangered saiga and the people who struggle to protect them, are dear to him. His team consists of first-rate specialists and absolute altruists who every day risk their lives chasing poachers in the impassable steppe. This is self-sacrificing $\frac{N}{\epsilon}$ and often heroic work, which is not supported either with money, or adequate conditions, or governmental support.

Why do these people continue to patrol in the steppe every day? How do they find resources and finance? How do they manage to refrain from the temptations of pouching themselves? I can see only one answer: this is an extremely well-fitted team of professionals, and more importantly - very worthy and committed people.

We know that while the saigas are within protected areas, they are safe. Unfortunately, they constantly migrate and do not stay where nobody hurts them. It is quite clear that as soon the saiga go beyond the Stepnoi reserve's boundaries, poachers start up their motorcycles at once...

Kalmykia and the Steppe Spirits

We moved from the steppe encampment to another steppe - that of Kalmykia. Here, in the Centre for Wild Animals of Kalmykia, we were filming the very important missing components of our film; close-up pictures, saigas' limpid eyes, their quaint noses and golden backs. Especially for us, the Centre staff cut off the water supply to the enclosures so that in the morning the saigas came up to the fence to wait for water. It makes an amazing contrast first to observe the saiga in their natural environment, looking for every valuable shot, rejoicing at every new animal coming to the watering place, and then, all of a sudden, get so close to them that you can see their eyes and every small spot on their hides.

Yuri Arylov, the Centre Director, talks about the saiga as enthusiastically as his colleagues from the Stepnoi reserve. Since he is a man of science, we hardly have time to write down and memorise his interesting facts about saigas. At the same time, tenderness and some centuries-long sense of the Kalmyk's respect for the saiga show through in his stories Of course, judging by the thriving poaching, not all those in Kalmykia believe in the spirit of the steppe, the White Old Man, who protects saigas and orders people to take care of them. Yet this belief still continues to live on invisibly in many people.



The Zoo TV filmmaking crew with staff of the Stepnoi reserve and IFAW.

The Centre staff look after the saiga as they would tend domestic animals and it is amazing to observe how these ancient antelopes, that have outlived the mammoths, movingly stretch their necks to look out for a man bringing hay. We are constantly reminded that this unique population, created by the efforts of Yuri Arylov, may be the only chance for the survival of the European saiga population.

In Elista, in the last few days before our departure, we tear off signs reading "I will buy old saiga horns" from lamp posts, realising again and again that the saigas are in real, true-life danger. At home, I am looking through our film, writing a script, from time to time casting a glance at a figurine of the White Old Man. I go through the whole saiga story again and want to believe that the Spirit of the Steppe still exists and will protect the animal he loves. And meanwhile, may the people who really fight to protect the saiga - against poachers, law-enforcement agencies, the State, circumstances - grow ever stronger. Hopefully, the film by the Zoo TV Channel "The Saiga: Elusive Beauty" will help in the amazing saiga in its struggle for survival.



Saigas feeding in the Centre for Wild Animals.

For more information about our work, refer to: http://telezoo.tv/, and also watch the new series of our film at http://telezoo.tv/anonsy/item/189-film-saygaki-uskolzayuschaya-krasota.

Mass media campaign for awareness raising in Kazakhstan

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From the very beginning, raising awareness was a high priority and known to be of great importance for the success of our saiga conservation work. This year we have developed a public awareness film called "Save the Saiga" in both Kazakh and Russian languages, and produced a poster entitled "We can still save the saiga". We have also assisted in the publication of the comic book "The Saga of the Saiga" in Kazakh, and posted billboards with the support of many governmental organizations throughout Aktobe region, home of the Ustyurt saiga population.



Screen shoots of the film.

The film "Save the Saiga" was created in two formats; a 1.5 minute version for showing at events for a wide range of audiences and a 30 second version which was developed for showing on television, following the recommendations of the Committee for Forestry and Hunting of the Ministry of Agriculture. So far the film has been broadcast on the regional channels of the "Internews Kazakhstan" agency and on the commercial channel for Aktobe region, "Rika-TV". During October 2012 the film was potentially viewed by the thousands of people who have access to the "Aktobe, Kazakhstan" channel. The regional Heads of the Kazakhstan Television and Radio Company decided to show these free public service broadcasts in support of local government policy. In addition, with the assistance of the OSCE (Organization for Security and Co-operation in Europe), Astana the film was sent to other cities which act as regional centres (Aarhus, Aktau, Atyrau, Karaganda, Shymkent and Pavlodar). It was also shown at the Akboken Ecoclub at school № 3, Shalkar village, and the "jezKiik" club at a school in Oymaut village, Bayganin district.

The poster "We can still save the saiga!" was developed in close cooperation with the Committee for Forestry and Hunting. It includes recent changes toughening up national legislation (see the update above). One thousand posters were distributed to schools and local government in the Aktobe region, to branches of the game management organisation "Okhotzooprom", libraries, hotels, shops, international organisations and embassies. In the near future, with the support of the Committee for Forestry and Hunting, we hope to increase this to a full-scale campaign on the media, in airports and railway stations in Astana and Aktobe.

At the suggestion of the Committee for Forestry and Hunting we decided to support the publication of "The Saga of the Saiga" comic in Kazakh, working with the author Makhsut Zharimbetov. This publication also was supported by NABU, SCA and ACBK. The comics were widely distributed and were well received, especially by children. They were distributed in orphanages and children's homes in Astana and during a charity concert in November, called "Urban Sounds".

We have displayed billboards about saigas on highways in the Aktobe region, reminding drivers and pedestrians about the threat of extinction. This was made possible thanks to the participation of many governmental organisations: the Aktobe wildlife inspectorate, the Department of Natural Resources and Environmental Control, and of course, the Head of Aktobe region.



Poster produced by the Ustyurt Landscape Conservation Initiative.



Children read "The Saga of the Saiga" comics.

This outreach component of the 'Ustyurt Landscape Conservation Initiative' project is not going to stop here. Our future plans include interviews with journalists, TV and radio programs, work with schools and universities, as well as further work to enhance public awareness about the conservation of the saiga in general.

The Ustyurt Landscape Conservation Initiative is made possible with funding from the American people provided by the U.S. Agency for International Development USAID / Sustainable Conservation Approaches of Priority EcoSystems (SCAPES) program, the UK Darwin Initiative and the Disney Worldwide Conservation Fund.

Saigas come to the big screen

Elena Bykova, esipov@xnet.uz, and Sevara Sharapova, sevara.sharapova@undp.org

Over the last few decades, the global saiga population has decreased by 95%, placing it in the highest category of threat. In Uzbekistan the saigas come every winter only to the Ustyurt plateau. In 2008, the saiga was included as an endangered species in the Red Book of the Republic of Uzbekistan. Since then, conservation activities have been underway. One of these is the creation of an animated film about a baby saiga called "The Steppe Tale", as a way of enhancing public awareness about saigas. The film tells the story of a curious baby saiga who lags behind the herd and almost becomes easy game for a hunter. "The Steppe Tale" was

created at the Gala film studio, commissioned by the Saiga Conservation Alliance with the support of the Penguin Club, Disney-Canada, UNDP-GEF and the State Committee for Nature of the Republic of Uzbekistan.

To make the animated film more memorable, we decided



Children and teacher of the "Barkamol Avlod" studio, Sergeli district, with drawings for the animation.

that the children themselves should be involved in its creation, so the film has two elements: the animation and a children's play. The animation used drawings by the children from "Yangi Avlod Forumi" and "Barkamol Avlod" art centres, Children's Music and Art School № 15, and school № 54 in the village of Jaslyk on the Ustyurt



plateau. Children from the village of Kyrk-Kyz on the Ustyurt plateau, in the saiga range, featured in the film. "An animation is something very special, original and extremely complicated" says script writer Yevgeniya Palekhova. "The idea was to mix the children's drawings. I mean, every kid has drawn some part of the story. And you know, children not only draw, but also think, in different ways".

In order to embrace a wider audience, the film is available in three languages – Uzbek, Russian and English. Children from Tashkent schools and Tashkent International School were involved in the sound recording. The kids did a great job and at the same time learnt about saigas. As one of the girls, Maya Laitinen, said, it was very interesting to participate in the project and they hoped that the animation would contribute to saiga conservation.

It is for viewers to judge the film, yet in our opinion, we have made a very integrated, warm story, with thrilling action and a happy ending. It shows the warmth of children's hearts and their hope that little steppe antelope will be saved.

On 15 March, the cartoon "The Steppe Tale" was premiered in Tashkent.

For more information, please go to http://www.un.uz/ru/news/208.html,

http://kultura.uz/home/29-news/3872-prezmult.html.

The animated film is available at http://www.youtube.com/user/SaigaConservation. You can get the DVD in three languages from Elena Bykova, Sevara Sharapova, or Galina Vinigradova, gala.film.v@gmail.com.

A new literary and artistic ecological project implemented in Uzbekistan

Elena Bykova, esipov@xnet.uz

Today the fate of the saiga concerns all mankind. One of the most ancient mammals on Earth appears to be on the verge of extinction. The unusual story of these steppe antelopes, their current tragedy, ecologists' accounts of the results of scientific expeditions, the work being done to save saigas in Uzbekistan and all over the world, scientific papers, documentary films and personal observations have inspired poet Raim Farkhadi to write a book about the adventures of a baby saiga, called "The Baby Saiga from the Red Book". The poet and journalist Akhmad Khodja has translated this book into Uzbek. The painter and teacher from Yangi Avlod Forum Studio, Karine Kurgina, has contributed unusual and very warm illustrations.



Karine Kurgina and her students with the saiga children book.



Illustrations from the saiga children's book by Karine Kurgina, from Art studio "Yangi avlod".

This international literary and artistic ecological project was implemented with the participation of the Saiga Conservation Alliance and the children's eco-magazine "Rodnichok", children's art studios in Tashkent, and the «BAXTKEL» NGO for Ecology, Culture and a Healthy Life-style. It was supported by the Penguin Club, Disney-Canada. Raim Farkhadi confessed that after he had read this poem to young conservationists and teachers, he realised the strength of our talented children's wish to take an active part in nature conservation. The book is published in Russian and Uzbek. For additional information and free copies of the book please contact Elena Bykova.

Preventing transboundary trade of saiga derivatives in Mongolia and China

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Poaching and the illegal trade in saiga horn still occur in Mongolia. A recent study estimates that the annual consumption of saiga horn in China is around 9,000 kg, and that demand for saiga horn is still high (TRAFFIC report, 2010). This demand is expected to induce both re-export of saiga horn from Kazakhstan via Mongolia and smuggling of Mongolian saiga horn to China. The border defence force, customs and specialized inspection agencies at border points play an important role in the control of the illegal wildlife trade, in close cooperation with the police, environmental inspectors and rangers working in the vicinity of the border. Therefore, WWF Mongolia proposed a project to consider establishing an international coordination mechanism for monitoring the saiga horn trade in the transboundary area between Mongolia and China. The project was implemented during the period November 2011 to November 2012 with major financial support from the USFWS via the SCA. The project contributed to the fulfillment of the Convention on Migratory Species' Medium Term International Work Programme for the saiga antelope by addressing important issues including developing international coordination mechanisms for the MoU, cross-border cooperation in CITES implementation, identification of saiga products and techniques for countering illegal trade.

Objectives of the project were:

- To establish Chinese-Mongolian contact for the wildlife trade by expanding cooperation with governmental agencies;
- To build the capacity of customs inspectors and staff at priority border points for effective control of the illegal trade in saiga derivatives;

 To increase public knowledge on international and national legal frameworks concerning the saiga and its derivatives.

The major achievements of the project were:

- 1) A Memorandum of Understanding between Mongolia's Ministry of Environment and Green Development and China's Ministry of the Environment was finalised in December 2012 at a joint government meeting. The MOU between the two Ministries did not specifically highlight saigas but included two areas of cooperation including ecological and biodiversity conservation and transboundary environmental cooperation. The project was extensively supported by the participating parties both financially and technically. WWF Mongolia and China's CITES Management Authority co-financed most of the activities, absorbing any additional costs caused by inflation and by an increased number of training participants.
- 2) Based on the decision of a joint coordination meeting (28-29 March, 2012, Beijing, China), Mongolia's and China's CITES Management Authorities and WWF organized training in Urumqi, China on 6th-9th November, 2012. More than 50 law enforcement officers participated and the success of the training will be monitored, e.g. by comparing the number of illegal activities uncovered in the next 12 months. The participants agreed to make available to each other capacity building and training materials relevant to combating wildlife crime, including on wildlife forensic methods. Depending on the availability of funds and their respective resources, they agreed to jointly devise and



Participants in the capacity building training at three border points in the saiga range between Mongolia and China in Urumqi, China.

conduct training courses and capacity building activities, and to increase bilateral and inter-agency collaboration in their daily work. Training for law enforcement agencies doesn't just raise the qualification of the officers who receive it, but also strengthens the cooperation between agencies, at border points and in public market places.

3) The project team developed bi-lingual materials (a poster and leaflets) which aim to close the information gap among the public identified by a knowledge and attitudes survey. The information included the international and national legal framework on saiga conservation and any legal implications if a person is involved in illegal trade in saiga and its derivatives. The poster also provides information on who the reader should contact if they are aware of illegal activities (Fig.1). This poster has been distributed to the public in the saiga range and at the three main border points between Mongolia and China.

The project team would like to express its gratitude to the USFWS for financing this project and SCA for administrating it. We would like to thank Mr. Enkhbat Donchinbuu and Mr. Batbold Dorjgurkhem, of the CITES Management Authority of Mongolia, Mr. Meng Xianlin and Mr. Lu Xiaoping, of the CITES Management Authority of China, for their valuable contributions to the bilateral draft



Figure 1.
Poster on illegal wildlife trade.

agreement, conducting the joint workshop, training and organisational support. We also thank the respective law enforcement agencies, departments and societies in both countries for their active participation, information sharing and their valuable comments and recommendations for future work on combating the illegal wildlife trade in transboundary areas.

Media reports

Signing of the Russia-Kazakhstan agreement on the Volga-Ural saiga population

The Minister for Natural Resources and Ecology of the Russian Federation, Sergei Donskoi, and the Minister for Agriculture of the Republic of Kazakhstan, Asyldjan Mamytbekov, have signed an Inter-Departmental Agreement on the protection, restoration and sustainable use of the Volga-Ural saiga population. The document was signed on September 19, 2012 at the 9th Forum on Inter-Regional Cooperation between Russia and Kazakhstan in the city of Pavlodar (Kazakhstan). The agreement is for five years in

the first instance, with the possibility for extension for further five-year periods if neither of the sides wishes it to lapse. It provides for joint research to estimate the frequency with which saigas come to particular areas, to determine the direction and length of their migration routes, and develop methods for counting the population and tracking their movements in border districts. This research will be conducted in order to implement practical conservation measures. The parties will also develop recommendations for the improvement of legislation in order to combat violations of wildlife protection laws.

For more information, please go to http://www.priroda.ru/news/detail.php?ID=10674 and http://savesteppe.org/ru/archives/9560.



Saiga hunting prohibited in Kalmykia

This prohibition on trade and sport hunting on saigas runs until December, 31st, 2020. It also includes a prohibition on trade in saiga products, including the collection, preparation, acquisition or sale of their horns. According to IFAW's representative in Russia, saiga numbers in Kalmykia have dropped by more than 90% over the last 10 years. This catastrophic decline in the European saiga is related to poaching of males, which precludes recovery of the population due to reduced fecundity.

For more information, please go to http://www.elista.org/index.php?option=com_content&view =article&id=16761:2013-02-19-07-33-54&catid=1



A new nature reserve in Kazakhstan promises to become a second Serengeti

The Committee for Forest and Hunting Management of the Ministry of Agriculture of the Republic of Kazakhstan has created Kazakhstan's 27th state nature reserve, called Altyn Dala. It covers an area of 489,766 hectares and aims to conserve the unique biodiversity of the steppe and desert ecosystems of Central Kazakhstan. The nature reserve is located on the land of the Zhangeldy and Amangeldy districts of Kostanai region. It includes the main habitat, migration and calving areas of the Bekpakdala saiga population. Its flora includes over 370 species, 23 of which are rare. The vertebrate fauna includes 57 mammal species, 275 birds, 11 reptiles, 4 amphibians and 9 fish. A reintroduction programme is planned for two rare ungulate species: Przewalski's horse and the onager (Asiatic wild ass).

For more information, please go to http://kt.kz/?lang=rus&uin=1133168071&chapter=11535648 26 and http://www.centrasia.ru/newsA.php?st=1351851360.



UNDP/GEF works to conserve saigas in Russia

In 2013, the United Nations Development Programme (UNDP) intends to contribute to the expansion of Russia's system of protected areas. Specifically, the plan is to initiate the creation of a regional reserve (zakaznik) for saiga conservation in Kalmykia, in an area bounded by the roads from Astrakhan to Yahskul', Yashkul' to Komsomolsk, and Komsomolsk' to Ulan-Khol. The regional government's Press Office states that this area contained about 95% of the current pre-Caspian saiga population, totalling around 7000 individuals. The regional government is also considering creating a Special Saiga Protection team in Kalmykia and the Astrakhan area, numbering at least 30 people. This will be funded from Federal subventions. As the head of the Russian UNDP steppe project, Yevgeni Kuznetsov, says: "Nobody except the government, no organisations or funders can help today. If we do nothing, then the saiga will exist for five years at most. A Federal program is needed, otherwise we will lose this species and it will be a disgrace to the country. We will have only those saigas which will come from Kazakhstan to the Astrakhan or Volgograd regions".

For more information, please go to http://ria.ru/eco/20130115/918201332.html and http://ria.ru/eco/20130111/917751624.html and http://www.elista.org/index.php?option=com_content&view =article&id=17076:2013-03-19-08-42-27&catid=1.



Articles

Application of satellite transmitters for the study and conservation of the Ustyurt saiga population

Albert Salemgareyev

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In the autumn of 2012, as part of the Ustyurt Landscape Conservation Initiative (ULCI), ACBK specialists once again fitted 5 saigas with satellite transmitter collars in the Ustyurt saiga population. Currently there are 9 collars actively transmitting signals in this population

The Ustyurt saiga population is now the smallest in Kazakhstan, currently estimated at 6,500 animals (based on aerial census data, see SN-15). This population is trans-boundary; saigas also occur in the Karakalpak part of the Ustyurt Plateau in Uzbekistan, to which they migrate from Kazakhstan in winter. Long seasonal migrations are typical of saigas, their distance depending on weather conditions. Until now there have not been sufficient reliable data on the length of these migrations.

The ULCI project started to carry out satellite telemetry in September 2011, led by the Association for Conservation of Biological Diversity (ACBK). We have now fitted 10 GPS+ collars (*Vectronic-Aerospace*). The main objective of this work was to determine wintering and calving areas, migrations routes and other biological traits of the Ustyurt saiga population, as well as enhancing the effectiveness of protection using the satellite traces to locate animals. The collars were put only on females under 3-4 years old, as females have better survival than males, which often die during the rut. Males practically don't eat during the rut, and then weaken so that they become easy prey for predators or are killed by poachers.



A female saiga with a satellite transmitter.

The transmitters of six out of ten females stopped transmitting after 1-5 weeks, while the remaining four females continued to provide location signals throughout the year. 4,152 locations were received between October 2011 and October 2012, with three positions taken per day. For three collars, 97% of locations were successfully transmitted, and 86% for the fourth collar. The telemetry data were entered onto a Geographical Information System using ArcGIS, and a saiga distribution map was created including information on summer and winter ranges, calving and rutting locations (Fig. 1).

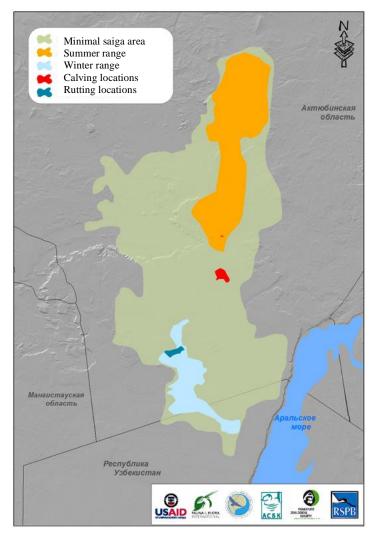


Figure 1.
The annual saiga range based on the minimum convex polygon method, and the seasonal ranges.

The summer range was determined based on locations from the end of May to the end of September and winter range from the beginning of December to the end of March. Calving took place from the beginning to end of May, and rutting from around 5th December until mid-December. We would like to note that the rutting and calving locations were determined solely on basis of the telemetry data, without ground truthing with observations. As shown on the map (Fig. 1), the winter areas were in the northern part of the Ustyurt Plateau (on the Kazakhstan side: Mataikum sands, Asmataimatai salt pans), in places with thin snow cover. Saigas also ventured into northern Karakalpakia (in Uzbekistan, about 35 km from the Kazakh-Uzbek border). The saigas stayed in Uzbekistan for three months at most. The total wintering area covered 1,500 km². In summer saigas were recorded on the Shoshkakol mountain ridge and the Shagyrai Plateau, where there are permanent water sources. The total area of the summer range was 4,500 km². We need to collect more telemetry data combined with ground-based monitoring in order to get a complete picture of the distribution of saigas and areas which are important for them.

In winter 2011-12, we managed to locate the places where enter the territory of Uzbekistan (Fig. 2). On one of the saiga movement tracks it can be seen that the animal could not cross a barrier on the border and had to look for other places where it could cross. The second example shows an animal moving along the fence for 14 km (Fig. 3), trying to find a place to cross, and finally succeeding.

I would like emphasize that Ustyurt population is the smallest in the world. Construction of a solid border fence will lead to depletion saiga numbers in because a barrier to migration during severe and snowy may cause winters mass mortality of the animals. Satellite monitoring the Ustyurt saiga population continues, it does for Kazakhstan's other saiga populations (Betpakdala and Ural).

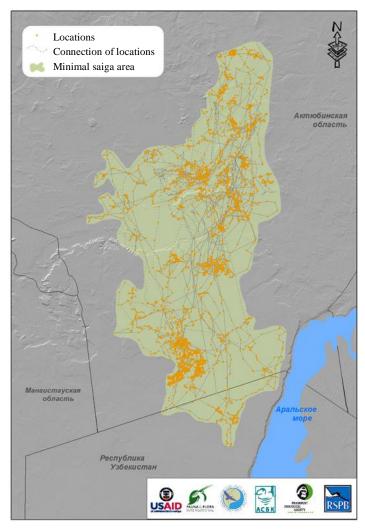


Figure 2. Saiga tracks over the observation period.

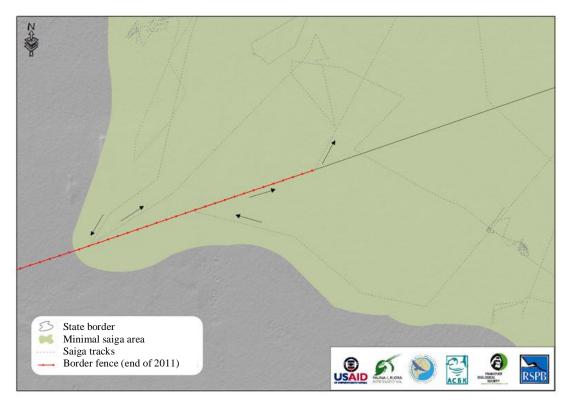


Figure 3. The influence of the border fence between Kazakhstan and Uzbekistan on the seasonal migrations of two tracked saigas.

Remote and in situ analyses of the potential causes of saiga antelope die-offs in Western Kazakhstan

Anthony Dancer; Victoria Pinion; Richard Kock; Orynbayev Mukhit; Maria Karlstetter; Navinder Singh; Sarah Robinson; Bibigul Sarsenova; E.J. Milner-Gulland

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Introduction

Mass die-offs of saiga antelopes were reported post-calving in the Ural population in Borsy, Western Kazakhstan in 2010 and 2011. Similar pathologies and symptoms were reported in both years (>75% mortality in die-off zones, with unaffected animals from the same population in other areas; rapid onset of acute respiratory distress/bloating in adults leading to sudden death from asphyxia) suggesting that, rather than being caused by an infectious pathogen, the mortalities may be pasture associated (see SN-14 for details). Based on this, the current hypothesis is that postcalving pastures were unusually nutrient-rich and fastgrowing, abnormally high in moisture content, or atypical in plant species composition. Unusual environmental conditions, namely die-off zone topography (fertile, moisture-rich surface depressions), unusually warm and/or wet weather, or pasture improvement, could have contributed to these characteristics. Consumption of this vegetation may have led to Atypical Interstitial Pneumonia (AIP), or fog fever, which in cattle results from sudden exposure to lush pastures. We tested the assumptions underlying this hypothesis, firstly, by exploring climatic conditions and vegetation attributes in the die-off areas using remotely sensed images, and secondly by gathering data in situ on pasture composition and nutritional quality.

Methods

We used online weather data to assess whether temperature prior to the events departed significantly from long-term variation, and satellite imagery to assess whether plant productivity or moisture content in die-off zones

departed significantly from long-term variation or surrounding pastures. We constructed 30-year temperature averages for comparison with conditions in the region in 2010 and three meteorological 2011, for stations. Aleksandrov-Gai in Russia. and Furmanovo and Uralsk in Kazakhstan (80, 155 and 300km distant, respectively). Unfortunately could not access enough precipitation data for a meaningful analysis. We used MODIS satellite images to produce indices of plant productivity (NDVI) and leaf water content or soil moisture (NDWI) at 250m resolution for 16 day periods from 2000 onwards.

The *in situ* investigation compared plant community composition and species richness in die-off zones with that in adjacent calving areas, in which saigas were present but unaffected in 2011 and marginally affected in 2010, and compared plant species richness in topographical depressions with plateaus and elevations. We also tested for the presence of L- tryptophan in plants, which is important in the development of AIP. We carried out a quadrat-based vegetation survey along E-W transects in May 2012, stratified according to topography. Community level differences were calculated using ordination and richness determined using species accumulation curves. Samples of commonly-grazed, relatively-abundant species were tested for L- tryptophan content using High Performance Liquid Chromatography.

Results

Temperature recordings from all stations showed similar patterns. Particularly cold winters preceded both events (Fig. 1): mean maximum daily temperatures at Aleksandrov-Gai reached a nadir of -17.3°C in late January 2010, almost 12°C below average for the time of year, with a similar low of -16.3°C in late February 2011, almost 13°C below average. Particularly warm temperatures in spring, a hypothesised factor in atypical pasture development, were observed in 2010, but not in 2011: 27.0°C in early May 2010, over 6°C above average.

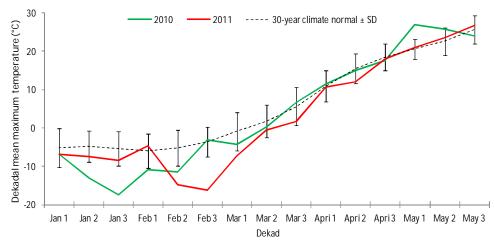


Figure 1. Mean maximum dekadal temperatures recorded at Aleksandrov-Gai, Russia (80km distant from event epicentres).

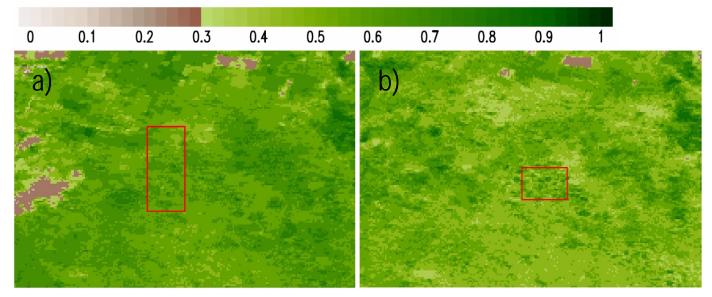


Figure 2. Pseudo-coloured NDVI imagery of 50 x 50 km area surrounding events for the period of die-off in a) 2010 and b) 2011. Die-off zones are bordered in red. Higher values indicate higher plant density (as a proxy for productivity).

Satellite imagery revealed that neither plant productivity nor moisture content at the time of the die-off varied from long-term variation for that time of year. Interestingly, substantially below-average productivity and moisture were recorded in late spring in the preceding years (2008 and 2009). Productivity during the die-offs was also similar to that seen in surrounding areas where saigas were unaffected (Fig. 2). Vegetation moisture content, however, was significantly lower in die-off zones compared to adjacent areas.

Species composition differed between sites. The quadrats in the areas where the die-offs had previously occurred were more similar to each other than to the calving zones, while the calving zone sites were quite variable in species composition (Fig. 3). There was also higher plant species richness in the die-off zones. Furthermore, the depressions

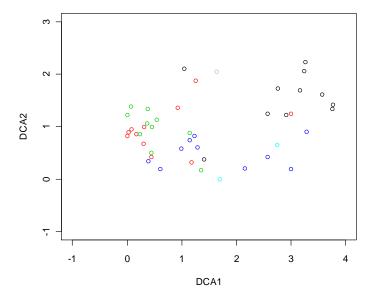


Figure 3. A detrended correspondence analysis ordination for die-off and calving sites in 2010/11. Each point represents an individual quadrat, and each colour represents a different area: 2010 calving zone (black), 2011 calving zone (blue), 2010 die-off zone (green) and 2011 die-off zone (red). Points of other colours illustrate multiple quadrats with identical compositions.

appeared richer in species than either the hills or plateaus. The samples from all sites had high enough L- tryptophan levels to be capable of triggering AIP.

Discussion

We did not observe unusually warm temperatures preceding the 2011 event, suggesting that this may not be a factor in causing the saiga deaths. However, it is interesting that the preceding winters were substantially colder than normal, which could have influenced plant attributes or increased the saigas' vulnerability to disease. Although it was not possible to assess variation in precipitation, local people suggested that the weather was unusually wet prior to the die-offs. However, if this wet weather changed plant moisture content and productivity, that would have shown up in the NDVI or NDWI analyses. Although the NDVI was not different from other years, or between the die-off zones and other areas, the leaf/soil moisture was different between die-off zones and surrounding areas, suggesting that there may have been pasture differences that could have contributed to the dieoffs. Furthermore, other NDVI-related extremes of variability need to be explored. Also of interest are the lower than usual productivity and moisture in 2008 and 2009, potentially altering pasture attributes in subsequent years. The coarse resolution of satellite imagery, however, probably obscured finer-scale variation in vegetation. This is particularly important as saigas are selective feeders.

Our pasture studies indicate that post-calving pastures had the potential to induce AIP: higher species richness could be indicative of higher energy and nutrient availability, a potential catalyst of the syndrome; and L-tryptophan is important in its development. These are not the only factors involved in disease progression however, and the study was limited by being carried out in 2012 rather than during the event years.

These results generally support the current hypothesis: the remote analyses support some degree of unusual weather and location-specific differences in vegetation quality in die-off zones; while the pasture analysis suggests that die-off pastures have the potential to induce AIP.

This does not confirm it was the cause but justifies more research. In particular it would be useful to assess the effect of climatic patterns on plant growth and nutrient levels at the appropriate scales in future years, and to carry out a more detailed analysis of plant composition and soil characteristics in die-off zones relative to typical pastures.

Monitoring of grazing patterns and plant ingestion postcalving would also provide useful data to improve understanding of saiga pasture use. This would contribute to a better understanding of how to mitigate against future dieoffs, for example by restricting access to certain pastures if their AIP-inducing potential becomes too high.

Ancient techniques for hunting saigas in Ustyurt: the remains of arrans

Joseph W. Bull & Alexander Esipov

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In the 1970s -1980s, during the archeological investigation of the Ustyurt Plateau, V.N. Yagodin discovered and described arrowhead-shaped walls or so-called 'arrans'. These peculiar, impressively large, hunting constructions (Fig. 1), had been used for hunting onagers (Equus hemionus), saigas, goitered gazelles (Gazella subgutturosa) and Ustyurt sheep (Ovis vignei). Similar constructions have been found in the near East, Europe and America.

Arrans were actually a kind of corral occupying an area of several dozen hectares, with funnel-like diverging directional "barbs". A ditch with soil excavated and dumped along it served as the fencing for the arrans. The arrans are skillfully adjusted to the landscape relief and demonstrate the hunters' good knowledge of animal biology and, particularly, their migration routes.

Knowing how the arrans in the look aerial photographs, we tried to discern them in GoogleEarth satellite images. After numerous attempts, we found one arran from the group of North-Ustyurt the arrowhead-shaped walls.

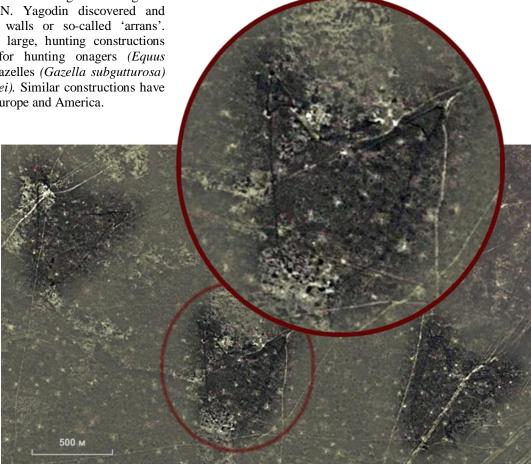


Figure 1.

Arrans as viewed from space (adapted from GoogleEarth), showing 'arrowhead' shape. Northeastern Uzbek Ustvurt.

It was crucially important for us to choose an optimal scale - a height of about 2,500 m. Eventually we found over 50 arrans in the satellite images, of differing degrees of integrity but of approximately identical structure. The satellite images show that some of the arrans had surely been added to and improved upon during operation, resulting in their gaining additional elements. All the arrans we have discovered were located in the triangle between the Duana site on the eastern Ustyurt escarpment in Uzbekistan, the eastern extremity of Sam desert (in Kazakhstan) and the 25 km area to the south-east of the Tasai well (Kazakhstan).

The sides of this triangle are 130, 110 and 100 km long respectively (Fig. 1).

The arrans are grouped in three rows and in the majority of cases are oriented to the north with small deviations. Only a few of the northernmost structures have other cardinal points of orientation. In all likelihood, these corrals were used in autumn to hunt saiga as they migrated south. It is assumed that the arrowhead-shaped walls could work in two modes: passive and active.

In the first case, the animals migrating south would run into the corrals and the hunters would then come and kill them. In active hunting, the animals were chased through the arrans and then killed.

In June 2012, having at last found the exact coordinates of the arrans, during a UNDP expedition to the Ustyurt assessing the damage caused to nature by oil and gas companies, we used the opportunity to examine several structures in a fair state of preservation. It took some effort to make head or tail of the first arran, since none of us

had ever seen one before. Even knowing for sure that we were standing exactly on the head of the arrow, we could not see it. Initially we expected to see something like a stone wall or similate structure, but there was no stone around. Having gone around in circles and noticing that the vegetation was heterogeneous and the relief was not quite smooth, we eventually understood that the arrans were ditches, some of them quite well-preserved; in some places several tens of centimetres deep. This is impressive for something many, many hundreds of years old (Fig 2.). According to approximate estimates by Academician Yagodin, construction and use of the North Ustyurt group of arrans started about the middle of the 1st millennium BC.

Also impressive are the considerable dimensions of the arrans: they are roughly the same size and of an elegant and regular shape, fitting within a rectangle of surface area 31-43 hectares. The average length of the ditch forming one arran is 2.25 km. The presumably labour-intensive construction and maintenance of such impressive hunting facilities, given that the Ustyurt soil is quite hard, indicates that construction involved collective labour and was compensated for by abundant offtakes. Moreover, the hunting must have been sustainable over a long period.



Figure 2. Arrans as viewed on the land surface.

Today, due to accumulation of rainwater and snow in the remnant ditches, their vegetation differs from that in other, drier areas, with plentiful *Artemisia terrae-albae*. It is due to this contrasting vegetation that the arrans can be seen from the space.

Subsequently one of our team members, Viktor Grigoryev, acquired a GoPro video camera for automatic filming and a pilotless helicopter to raise the camera to a height of 0.5km. A trial was performed during saiga monitoring conducted by our team using motorcycles on tracks, supported by the Whitley Fund for Nature. As expected, from above, the arran is perfectly visible, especially when the sun is low over the horizon (see Fig. 3).

Apparently, little seems to have changed in the saiga's behavior over the past two thousand years, because according to our observations, in Uzbekistan saigas are most often observed just in the area where the system of arrowhead-shaped walls is found, and where ancient hunters successfully conducted their large-scale, collective, hunting.

In recent times, poachers on motorbikes have significantly reduced the Ustyurt saiga population and placed it on the

verge of extinction. Particular concern arises from the construction in 2012 of a barbed-wire border fence blocking their ancient migratory routes (see SN-15). We are hopeful that when new fence is demolished and nothing but grass remains to mark where it stood, the saigas can survive by following their habitual age-old migratory routes.



Figure 3. Arrans as viewed from above.

Announcements

Small grants competitions, 2012

Our 2012 small grants competition was supported by the Wildlife Conservation Network. This is the continuation of our ongoing initiative to support grassroots projects and build capacity of those working to implement the priority actions of the Medium Term International Work Programme of the MOU on saiga conservation under the Convention on Migratory Species. This year we were pleased to be able to support two excellent projects from Russia and China.

Anatoly Khludnev's project aims to improve the logistical capacity of the Stepnoi reserve, by providing spare parts to mend vehicles used in anti-poaching patrols. This will strengthen their ability to control poaching and improve the saiga protection in the Astrakhan province, Russia. The project also encompasses public awareness activities

to disseminate ecological knowledge to local people.

Fuping Sun's project aims to reduce the illegal saiga trade and consumption of saiga products in Guangzhou, China. Its main activities focus on the continuation of market monitoring in the Qingping traditional Chinese medicine markets that has been carried out by the Wildlife Conservation Society's China Program since 2009, supported by the SCA. They will also improve public awareness of law enforcement and laws around saiga product consumption.

We congratulate our winners, and look forward to reading about their work in future issues of *Saiga News*. If anyone has any comments and suggestions about the Small Grants Programme, please contact the Editor, Elena Bykova.

Workshop on "Enhancing Implementation and Coordination of the Saiga Antelope Memorandum of Understanding" and Saiga Conservation Alliance Annual General Meeting

The UNEP/CMS Secretariat, in cooperation with the Association for the Conservation of Biodiversity in Kazakhstan (ACBK) and the Saiga Conservation Alliance (SCA), is pleased to announce that a technical meeting under the CMS Saiga MoU will take place on 18 June 2013 in Astana, Kazakhstan.

The objectives of the meeting are to discuss the impact of infrastructure construction through Saiga habitat and how the negative effects on Saiga populations can be avoided. The meeting will also discuss on-going coordination work for the Saiga MoU and the Medium-Term International Work Programme 2011-2015, including the presentation and launch of the Saiga Resource Center (SRC) Website.

For any further information, please contact the local organizers of the workshop, ACBK, by email to Olga Klimanova (olga.klimanova@acbk.kz) or fax (+7 727 220 3877).

Directly following the CMS workshop, on 19th June 2013, the Saiga Conservation Alliance will be holding its Annual General Meeting. Everyone with an interest in saiga conservation is welcome to attend this meeting, to discuss the past, current and future activities of the SCA and to provide feedback on its aims and objectives. Please contact the SCA secretary, Elena Bykova, on esipov@xnet.uz, for more information and to register your interest in attending.

Saiga heroes



Those who conserve nature are worthy of respect. Nature inspires and enriches our lives, contributes to our wellbeing and delivers the ecosystem services we need to survive. Moreover, conserving endangered species makes a significant contribution to a country's national and international obligations. A Saiga Ranger Network (SRN) team which is devoted to this highly esteemed activty is actively working in the Altai Sayan Ecoregion of western Mongolia. Saiga News interviewed Mr. B.Batsaikhan, who is the leader of the SRN.

Editor: When was the SRN first established?

B.B.: It was re-established in October 2007 under our saiga conservation project. Our SRN team carries out effective protection activities in the 11 regions of Khovd and Govi-Altai provinces, southwest Mongolia, which are considered to be saiga habitat. The SRN was founded in 1998 with 6 people from the saiga range, in order to raise public awareness and conduct ecological monitoring. Now we are 13 rangers throughout the saiga range.

Editor: What was the situation before the network was established? I assume that a lot of illegal hunting took place?

B.B.: You are right. We don't know how many animals and how many cases of poaching occurred before the network was established. One thing that I do know is that there was no control and no patrolling in the area, and also lots of advertisements asking to buy horn and other wildlife products. As a result of efficient and well-planned interventions, many cases of illegal hunting were detected just after the establishment of the SRN.

Editor: People are a key component of all nature conservation networks. What assets do your team members have?

B.B.: Most of our rangers are herders who are permanently based in the saiga range. They are all supported by groups of volunteer rangers, which ensures that the SRN is a community-based operation. They know their homeland and species well, and are more committed to conservation, which means that we can achieve more. Our network has 3 sub-teams and we compete with each other on who has the most success, which encourages the teams to strive for greater achievements. The team ensures a permanent presence throughout the saiga range, which is essential to deter poachers and also mobilises support from the local population.

All our rangers have been trained and equipped with

motorcycles; radio communications, GPS, digital cameras, binoculars, field maps and uniforms. We conduct routine ecological field surveys on Mongolian saigas on a monthly basis and develop a detailed work plan quarterly through team discussions. That's why our work is successful. The team is highly motivated, well trained and highly respected in the region. It is one of the best and most efficient law enforcement units in Mongolia.

Editor: What specific poaching cases have been detected by the network?

B.B.: Seven cases involving the poaching of 35 saigas have been detected since 2007 in close collaboration with local law enforcement agencies and the "MAPU-3" ranger team that works to detect wildlife crimes and brings perpetrators to justice. Also we detected 8 cases of 44 saigas being poached, though the perpetrators weren't found and so these are still under investigation. Besides saiga illegal hunting, we also detected cases related to goitered gazelles, ibex and snow leopards in the saiga range and the neighboring areas.

But detecting cases is not the most important thing, I think. The most important thing is to create an environment in which such cases can't occur. Nowadays, rangers must know how to improve community awareness towards conservation, rather than threaten people with penalties. We are now focusing on these approaches. Along with control, we do public awareness activities to stop people from poaching. At least the community in the saiga range is now aware that there are saiga protectors and have started to support our work. It is essential to work with local people.

Editor: What are challenges are your team facing?

B.B.: Of course there are challenges. Demand for saiga horns makes poaching worse. We are suspicious that there might be highly organized groups secretly running the trade in saiga horns. This is one of the obstacles we face. In some cases, saiga horns we didn't know about have been seized by customs at border points.

Editor: What was the most important thing in combating the illegal hunting and trading of horns?

B.B.: A reward for informants has become one of the best ways to uncover illegal activities. This policy has been widely advertised throughout the saiga range. Monetary rewards lead to the detection of cases of poaching. Up to now we have rewarded 8 people who have provided vital information on saiga poaching and 3 police officers who worked hard on these poaching cases.



Batsaikhan with a group of SRN rangers.

B.B.: As stated in our saiga conservation project report, we have seen a 40% increase in the population and a 10% extension of its habitat. This is confirmed by the discussions with the community, the current number of saigas, and frequent sightings in new areas. For example a group of saigas has been observed north of Durgun Tal since 2008, which is a place where saigas have been absent for several decades. This may be a first result of successful law enforcement and growing acceptance of saigas by herders. Community education and awareness have improved and they are keen to cooperate and to support us. They approach us not only about saigas but also other environmental issues, more than they approach the government rangers.

Editor: You usually say that you are rangers. Aren't you just saiga rangers?

B.B.: Even though we are called the saiga ranger network, our work is about the conservation of nature as a

whole. This is right, I think. We protect not only saigas, but also other wildlife

Editor: What is the most high priority action you think is needed in order to conserve saigas?

B.B.: The Mongolian saiga is very rare. They might perish if natural disasters such as harsh winters happen frequently. Therefore, the most high priority action is extending the saiga's range. In order to do this, surveys and research on saigas including on their migration patterns, distribution, food habits and the possibility of extending their range should be undertaken. The second addressable issue is tackling insufficient pasture land and the high density of livestock in the saiga range. Thus, multilateral collaboration of various organisations and communities is crucial for sustainable pasture management in the saiga range, so that livestock can coexist with wild ungulates.

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