

International Conference
“The Rufford Foundation for Biodiversity
Research and Conservation in Central Asia”
16-17 of March 2019
Aksu-Jabagly Nature Reserve, Kazakhstan



The Conference Report

The Conference held in the main office of Aksu-Jabagly Biosphere Nature Reserve in the comfortable and modern Conference hall equipped with relevant technical facilities as computer and projector, big screen and tribune. The venue is situated in the Village of Zhabagly in Turkestan Province of Kazakhstan.

The personal invitations were sent to the 92 Rufford Foundation grant's recipients in 12 countries. We have got the positive feedback from 46 people and finally 29 experts from 6 countries: Kazakhstan, Russia, Tajikistan, Uzbekistan, Armenia and Azerbaijan did attend the event and 46 authors have submitted 23 manuscripts to the Proceedings of the Conference book. All the Conference reports will be posted here in a week: wildnature-kz.narod.ru. The regional Rufford Foundation Small Grants recipients and the Conference attenders list is below.

№	Name	Country	E-mail	Participation	Publication
1	Josh Cole	Great Britain	joshcole99@hotmail.com	+	-
2	Svetlana Baskakova	Kazakhstan	baskakova2008@mail.ru	+	+
3	Aitbek Menlibekov	Kazakhstan	menlibekov@mail.ru	+	+
4	Elmira Jumanova	Kazakhstan	samat.reserve@mail.ru	+	+
5	Smatulla Jumanov	Kazakhstan		+	+
6	Alen Shakirov (RSG-2018)	Kazakhstan	alen_shakirov@mail.ru	+	+
7	Alyona Koshkina (RSG-2017)	Kazakhstan	alena_shmalenko@mail.ru alyona.shmalenko@acbk.kz	+	+
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14	Dosbol Enkebaev	Kazakhstan		+	-
15	Nurbakhyt Abdukarimov	Kazakhstan		+	-
16	Fedor Saraev (RSG-2014)	Kazakhstan	fas_2@rambler.ru	-	+
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18	Jaskairat Nurmukhambetov (RSG-2016-2018)	Kazakhstan	zhaskairat-84@mail.ru	-	+

19	Ilya Smelyanskiy (RSG-2009-2017)	Russia	oppia@yandex.ru	+	-
20	Yuriy Yarovenko (RSG-2008-2011)	Russia	yarovenko2004@mail.ru	-	+
21	Mark Pestov (RSG-2006-2010)	Russia	vipera@dront.ru	-	+
22	Maria Gritsina (RSG-2015)	Uzbekistan	mgritsina@gmail.com	+	+
23	Timur Abduraupov (RSG-2015)	Uzbekistan	timur.abduraupov@gmail.com	+	+
24	Rovshan Abbasov (RSG-2011-2018)	Azerbaijan	abbasov@hotmail.com	+	+
25	Dovutsho Navruzshoev (RSG-2010)	Tadjikistan	dovutsho@mail.ru	+	+
26	Karen Aghababyan (RSG-2013-2015)	Armenia	karen.aghababyan@gmail.com	+	+
27	Gurgen Khanamirian (RSG-2013-2015)	Armenia	gug.khanamirian@gmail.com	-	+
28	Ilona Stepanyan (RSG-2013-2016)	Armenia	stepanyanil@yahoo.com	-	+
29	Gayane Karagyan (RSG-2013-2015)	Armenia	gaykaragyan@yahoo.com	-	+

The main outputs of the Conference are:

- understanding the Rufford Foundation role in unity and fruitful work of the biodiversity experts,
- understanding of Research and Conservations results and issues in Central Asia,
- printed materials distribution,
- Central Asia experts network creation,
- stimulation of research by international experts in the Aksu-Jabagly Biosphere Nature Reserve.

We chose the standard format for International Scientific Conference as a series of participant's presentations, round tables, debates and the field visit to Aksu-Jabagly Biosphere Nature Reserve with friendly picnic. The Conference agenda is below.

The Conference Agenda

15th of March		Arrival of participants. Accommodation in local homestays. Dinner.
16th of March	9:00-9:30	Registration
	9:30-10:00	*Aitbek Menlibekov. Aksu-Zhabagly Nature Reserve as a laboratory for complex modern biological research
		The participant's self-introductions
	10:00-11:30	« Flora and Fauna Research and Conservation » Session. The participant's presentations. Questions and answers.
*Smatulla Jumanov, Elmira Jumanova & Diana Shakula. The history of botanical research in Aksu-Zhabagly Nature Reserve		
*Diana Shakula. The Lemmers Tulip (<i>Tulipa lemmersii</i>) – Narrow Endemic of Western Tien Shan		

* Karen Aghababayan. Development of Prime Butterfly Areas' network in Armenia: sustainable future for nature and people		
* Rovshan Abbasov. Improving sturgeon habitats in rivers of Azerbaijan		
* Alen Shakirov. The results of ichthyofauna research in the South-East of Kazakhstan (autumn, winter 2018)		
16th of March	11:30-12:00	Coffee break. Group photographing of participants of the Conference
	12:00-13:30	The Theriology Session. The participant's presentations. Questions and answers.
* Maxim Kulemin, Nurbakhyt Abdukarimov & Dosbol Enkebaev. The results of studying Rodents in the mountains of Turkestan Province of Kazakhstan		
* Georgiy Shakula. The Menzbieri Marmot (<i>Marmota menzbieri</i>) in Kazakhstan. Results of the study and prospects of protection		
* Ilya Smelyanskiy. Manul (<i>Otocolobus manul</i>) in Kazakhstan: distribution, conservation status and gaps in knowledge		
* Mariya Gritsina & Timur Abduraupov. Some Thoughts on the Status of Manul (<i>Otocolobus manul</i>) in the Mountainous Areas of the Republic of Uzbekistan		
16th of March	13:30-15:00	Lunch break
	15:00-17:00	Community engagement into Biodiversity Conservation Round table. Facilitator: Wild Nature NGO (Kazakhstan)
* Karen Agababayan. Sustainable use of ecosystems		
* Alyona Koshkina. The local communities involving in the monitoring and conservation of Important Bird Areas		
* Alen Shakirov. The fishermen communities involving in the protection of Kazakhstan native fish species		
* Elmira Jumanova. Marsh of Parks and Tulips festival in Aksu-Jabagly Nature Reserve - mass actions to involve local communities to nature conservation		
16th of March	17:00-17:30	Coffee break
	17:30-18:30	Elmira Jumanova Interactive Lecture "Biodiversity of Aksu-Jabagly Nature Reserve" in the Natural History Museum
	18:30-19:30	Community Based Tourism in Jabagly Village walking tour
	20:00	Dinner
17th of March	9:00-11:00	« Flora and Fauna Research and Conservation » Session. The participant's presentations. Questions and answers.
* Dovutsho Navruzshoev. The rare and endemic plants species of the flora of Mountain-Badakhshan autonomous province, Republic of Tadjikistan and their protection		
* Marina Chirikova. Development of Measures for the Conservation of the Desert Monitor (<i>Varanus griseus</i>) in Kazakhstan and Uzbekistan		
* Alyona Koshkina. About the experience of White-headed Duck <i>Oxyura leucocephala</i> tagging and monitoring in Tengiz-Korgalzhyn region to study its migration		
* Eugeniy Bragin. The role of the Rufford Foundation Small Grants Program in Rare Birds of Prey Research and Conservation in Kostanay Province, Kazakhstan		
* Svetlana Baskakova. Great Bustard (<i>Otis tarda tarda</i>) monitoring in the South of Kazakhstan		
* Svetlana Baskakova. The Large-billed Reed Warbler (<i>Acrocephalus orinus</i>) in Asia. Search continues		
17th of March	11:00-11:30	Coffee break
	11:30-13:00	Rufford Foundation as a Driver for Central Asia Biodiversity Research and Conservation Round Table. Issues and collaboration possibilities. Regional experts network creation.
* Mariya Gritsina & Timur Abduraupov. The Rufford Foundation helps to protect the nature of Uzbekistan		
* Alyona Koshkina. Cooperation in the field of conservation of rare species of Anseriformes and		

their habitats		
*Svetlana Baskakova. Creating a regional network of biodiversity experts in Central Asia and the Caucasus and developing joint projects		
17th of March	13:00-14:00	Lunch break
	14:00-15:00	How does Aksu-Jabagly Biosphere Nature Reserve work? Interactive office excursion and meetings with the staff of the Park
	15:00-16:00	Protected Areas Issues Round Table. Facilitator: Aksu-Jabagly Nature Reserve Vice-Director.
*Dovutsho Navruzshoev. Rare and endangered species of flora and fauna research in transboundary territories: China, Pakistan, Afghanistan, Tajikistan on the example of Zorkul Nature Reserve and Tajik National Park, Pamir, Tajikistan		
*Karen Aghababayan. Sustainable financing for protected areas		
*Ilya Smelyanskiy. The steppe ecosystems and their key species in protected areas of Kazakhstan		
*Svetlana Baskakova. The issues of regulation of visiting the Aksu-Zhabagly Nature Reserve for international scientific expeditions		
17th of March	16:00-17:00	Closing Ceremony and Certificates Awarding
	17:00-20:00	Field visit to Mashat gorge
	20:00	Dinner
18th of March	10:00-17:00	Kshi-Kaindy Waterfall horse riding trip. Picnik
19th of March	Fishing tour to Arys, Kulan rivers and to Kornilov's lake. Picnik	
	Shymkent State Historical Museum visit	
	Shymkent Zoo excursion	
	Departure in according with participant's individual travel itinerary	



Fig. 1. The Conference Participants group photo

The Report's Abstracts

1. **Aitbek Menlibekov.** Aksu-Zhabagly Nature Reserve as a laboratory for complex modern biological research

Aksu-Zhabagly Nature Reserve was established in 1926. Since that time the Nature Reserve carries out its scientific and conservation function. There are more 1500 species of vascular plants, including the famous Sievers apple tree; more 300 species of birds and more 50 species of mammals, including Snow Leopard inhabit in the Park. The system of protection is creating the best conditions for scientific research. The study methods are in accordance with biodiversity conservation. The Nature Reserve invites experienced and young scientists for the joint expeditions in the Park.



Fig. 2. Aitbek Menlibekov – the Aksu-Zhabagly Nature Reserve Director's speech

2. **Elmira Jumanova.** Marsh of Parks and Tulips festival in Aksu-Jabagly Nature Reserve - mass actions to involve local communities to nature conservation

The report is a story telling about Marsh of Parks and Tulips Festival annual mass actions on the local communities involvement into the nature conservation. In 2018, 5000 participants attended the Tulips Festival held on the Red Hill famous place with the highest density on blossoming Greig Tulips (*Tulipa greigii*) in Turkestan Province.



Fig. 3. Elmira Jumanova – the Aksu-Zhabagly Nature Reserve Vice-Director presents the History of botanical research in Aksu-Zhabagly Nature Reserve report

3. **Smatulla Jumanov, Elmira Jumanova & Diana Shakula.** History of botanical research in Aksu-Zhabagly Nature Reserve

The presentation represents the history of botanical research in Aksu-Jabagly Nature Reserve since late XIX century. The reserve's total area is 131 934,2 ha. The Nature Reserve's flora list consists 1312 vascular plants including more 20 relicts and 177 endemics. Joint expeditions of the Rufford Foundation Conference participants network are welcome to the Nature Reserve.

4. **Dovutsho Navruzshoev & Beknazarova Kh.A.** The rare and endemic plants species of the flora of Mountain-Badakhshan autonomous province, Republic of Tadjikistan and their protection

The report describes the current status of the rare and endemic plants of the Mountain-Badakhshan Province of Tadjikistan. The list of rare vascular plants at this stage of research includes 112 species from 48 families. The Red Data book list of plants history is considered. Monitoring of the status and numbers of the rare flora species is necessary for their conservation, as well as the development of a special technics for their cultivation in botanical gardens and nurseries.



Fig. 4. Dovutsho Navruzshoev – the Biological Institute of Pamirs, Tadjikistan Director and RSG-2010 recipient reports about rare and endangered flora species conservation

5. **Tillo Boboev.** Enhancing Conservation of Rare and Endangered Plant species by Conduction of Field Research and Increasing the Level of public Awareness in Eastern Khatlon, Tajikistan

Conservation of wild flora has the great significance in rural districts of Tadjikistan. We should take into account the speed of disappearing of rare and endangered plants. They were included in the Red Data book of Tajikistan even from the Soviet Union time. More than 30 years passed and it is clear now that the Red Data book of Tajikistan list of wild plants should be increased. Some rare plants can't wait, they may disappear at all in nearest 10 years, if appropriate measures wouldn't be taken for their conservation. Local people, particularly youth are responsible for collecting herbs and wild fruits in the rural districts. As a rule, they are not qualified enough. As a result, wild plants are experiencing serious damage or totally disappeared. During spring and autumn people are selling the collected herbs in local markets. It is very important to involve communities, especially young generation, into the conservation project.

6. **Diana Shakula & Svetlana Baskakova.** The Lemmers Tulip (*Tulipa lemmersii*)– Narrow Endem of Western Tien Shan

Mashat canyon is one of 8 sites in the World with wild-growing Lemmers Tulips. The authors have discovered 3 extra sites with the species in the region. The composition of the Lemmers Tulip's habitats plant's communities includes 59 species of vascular plants. The plan for further study was developed and measures for conservation are proposed.

7. **Gaiane Karagyan, Kalashian M.Yu., Ghrejian T.L. & Danchenko A.V.** Some Endangered Insects of Armenia: Proposals for Renovation of the Country's Red Book and Development of the System of Especially Protected Nature Areas.

This extensive report contains a list of insects recommended for inclusion in the Red Book of Armenia, a justification of the criteria and a description of sites for development of the system of protected natural areas of Armenia and proposal of Concept of Important Insect Area.

8. **Karen Aghababyan & Khanamirian K.** Further development of Prime Butterfly Areas' network in Armenia.

The Prime Butterfly Areas (PBAs) is a conservation tool – one of the options of Important Biodiversity Areas (Anderson 2002, Heath and Evans 2000). Prime Butterfly Areas have been identified for most of Europe with an intention to support other conservation networks, such as Natura 2000, Pan-European Ecological Network, Pan-European Biological and Landscape Diversity Strategy and Bern Convention (van Swaay and Warren 2006). In Armenia, identification of Prime Butterfly Areas was started in 2013 with a pilot project in Southern Armenia (Khanamirian et al. 2014), when the first set of seven PBAs was identified and assessed, and then continued with assessment of additional three PBAs (Khanamirian 2016). Meanwhile the country hosts 236 species of butterflies, many of those are endemics for the region (Butterfly Conservation Armenia 2019), and they are not covered with the existing network of PBAs. Quite large species diversity is conditioned by wide variety of habitats that exist in this mountainous country. Meanwhile economy of Armenia is developing and that can have a negative impact on species and habitat diversity, which are not entirely covered by the network of protected areas in Armenia. Last publication of Red Book of the Animals of the Republic of Armenia (Aghasyan and Kalashyan 2010) identified 24 species of butterflies that are threatened. The recently implemented works on Atlas of Butterflies in Armenia demonstrate necessity for inclusion of additional 72 species in the next edition of the Red Book (van Swaay et al. *in prep*). Thus, there was an obvious need for further development of the network of Prime Butterfly Areas in the country, as these areas are becoming drivers in further transformation of the lands' status, making them protected at National Level, included in Emerald Sites under Bern Convention, designated as Key Biodiversity Areas, etc. The article therefore focuses on continuation of identification and assessment of Prime Butterfly Areas in Armenia.



Fig. 5. Karen Aghababyan presents the report “Further development of Prime Butterfly Areas' network in Armenia” (RSG-2013-2015)

9. **Rovshan Abbasov.** Improving sturgeon habitats in rivers of Azerbaijan

The rivers of Azerbaijan are the preferred spawning grounds for the valuable sturgeon fish of the Caspian Sea, which contains over 90% of the world's sturgeon population. European sturgeon and Russian sturgeon are the most valuable representatives and only source for black

caviar. These species migrate to the downstream part of the Kura River to spawn. Intensive water withdrawals in many rivers of the region have led to significant changes in habitats of sturgeons. Improvement of habitats of sturgeons requires holistic approach and contribution of all sides. So far, these types of holistic approaches have not been used. Therefore, we have involved all the responsible sides to solution of the problem.



Fig. 6. Rovshan Abbasov from Azerbaijan is a big enthusiast in sturgeon habitats preservation (RSG-2011-2018)

10. Alen Shakirov. The results of ichthyofauna research in the South-East of Kazakhstan (autumn, winter 2018)

In 2018-2019, 48 stations were investigated at 29 reservoirs in the Almaty region; in addition, 3 stations were investigated on a pond in the Karaganda region. The taxonomic composition of the Balkhash Basin was represented by 11 native species, and 21 alien species. The rare aboriginal species are: Severtzov's Stone Loach (*Nemacheilus sewerzowii*), Seven River's Minnow (*Phoxinus brachyurus*), Common Dace (*Leuciscus leuciscus*), Plain Stone Loach (*Triplophysa labiata*) and Scaled Osman (*Diptychus maculates*). The study of the modern ichthyological composition of reservoirs within the city of Almaty shows that the introduction is currently ongoing, resulting in the emergence of new species of fish in the Balkhash basin.



Fig. 7. Alen Shakirov's report on the results of ichthyofauna research in the South-East of Kazakhstan was full of humor sense and anxiety for the preservation of fish resources of Kazakhstan (RSG-2018)

11. Ilona Stepanyan, Nikoghosyan G.N. & Pipoyan S. Kh. The Threatened *Ommatotriton ophryticus* Berthold, 1846 in Armenia: State of Populations, Habitats Conditions, Threats and Conservation Activities

Ommatotriton ophryticus Berthold, 1846 is listed in the Red book of Armenia as CR and in IUCN Red List as NT. In Armenia this species is presented by isolated populations inhabiting in small, degraded habitats, none of which is included in the Protected Areas network. The results

of actions, concerning with the measures of conservation of *Ommatotriton ophryticus* in Armenia are represented in the present study.

12. **Marina Chirikova & Juliya Zima.** Development of Measures for the Conservation of the Desert Monitor (*Varanus griseus*) in Kazakhstan and Uzbekistan

Aim of this project is: to continue exploring of the Desert Monitor lizard in Kazakhstan and Uzbekistan.

Objectives:

- expedition trip to study the distribution of desert monitor population density in different parts of the Kyzylkum Desert;
- examination of previously studied lizard populations and new;
- active promotion of information about Desert Monitor with the participation of the media, through zoos and schools to reduce the negative attitude to this species;
- definition Desert Monitor on the IUCN criteria status;
- According to the study, provide guidance to authorized organizations of Kazakhstan and Uzbekistan.



Fig. 8. Marina Chirikova's report on Desert Monitor was designed in a rigorous academic manner (RSG-2011-2016)

13. **Alyona Koshkina, Koshkin A.A., Murzakhanov E.B., Koshkin A.V., Urazaliyev R.S., & Bazdyrev A.V.** About the experience of White-headed Duck *Oxyura leucocephala* tagging and monitoring in Tengiz-Korgalzhyn region for the species' migration study



Fig. 9. Alyona Koshkina is telling about the experience of White-headed Duck tagging and monitoring in Tengiz-Korgalzhyn region (RSG-2017)

The report presents the results of the project «Identifying Migration Routes to Conserve Central Asian Population of White-headed Duck *Oxyura leucocephala*» supported by the Rufford

Foundation in 2017-2018 (project reference: 22516-1). More than 7500 birds were counted in the key nesting and stopover site for White-headed Duck in Kazakhstan – Tengiz-Korgalzhyn region in 2017, which is in line with the overall positive trend of migrating aggregations observed since 2013. In 2017-2018 ten White-headed Ducks were trapped using two different methods, that were developed by the project team based on traditional trapping methods for diving ducks taking into account the local conditions. Birds were tagged with lightweight geo-locators for the first time in Kazakhstan and Central Asian region. Authors discuss the methodological problems, provide recommendations for improvement of the trapping methods and suggest the objectives for further research. The results of monitoring migrating aggregations of White-headed Duck in Kazakhstan suggest the global population size is currently considerably underestimated and needs revision.

14. **Georgiy Shakula & Svetlana Baskakova.** Great Bustard (*Otis tarda tarda*) Monitoring in the South of Kazakhstan

The article contains materials of winter bustard surveys in Kazakhstan and describes the tendency of the species number increase in the recent 15 years. The main threats to the existence of the species continue to be illegal hunting and poisoning by pesticides on agricultural fields.



Fig. 10. Svetlana Baskakova's report on behalf of Aimee Kessler (RSG-2008-2010, Mongolia) on Great Bustard Monitoring in the South of Kazakhstan

15. **Eugeniy Bragin.** The role of the Rufford Foundation Small Grants Program in Rare Birds of Prey Research and Conservation in Kostanay Province, Kazakhstan



Fig. 11. Eugeniy Bragin stressed the role of the Rufford Foundation Small Grants Program in Rare Birds of Prey Research and Conservation in Kostanay Province, Kazakhstan (RSG-2004)

The funded by the Rufford Foundation Small Grants Program «Conservation and research of rare species of Birds of Prey in north-central Kazakhstan» project was implemented in Kostanay oblast in 2004-2005. The main objectives of the project were focused on the population's size assessing and rare and threatened species of birds of prey locating in Kostanay Province, determining the direction and speed of current changes and identifying key sites for the regular monitoring organizing.

16. **Fedor Saraev, Mark Pestov, N. Ongarbayev, Jaskairat Nurmukhambetov, Aktan Mukhashov & Ukhov S.V.** The Results of the Assessment of Bird's Mortality Caused by Electricity Power Lines in Western Kazakhstan (Atyrau and Mangistau Provinces)

The article highlights the results of bird mortality from electrocution on the medium-voltage power lines (PL) in two regions of Western Kazakhstan. During the survey along 1215 km of PL in Atyrau and Mangistau regions, the remains of 329 of birds belonging to 38 species were detected. Diurnal birds of prey, owls and corvids, composing 91,2% of all counted killed birds were electrocuted by the contacts with PL pole's elements. The rest of the birds died from mechanical damage when hitting the wires. Among electrocuted birds, 64.3% were species listed in the Red Book of the Republic of Kazakhstan. The dependence of the number of killed birds on the PL's design specs has been demonstrated. Recommendations for solving the electrocution problem of birds on the medium-voltage PL were presented.

17. **Mark Pestov, Jaskairat Nurmukhambetov, Mukhashov A.T. & Terentev V.A.** The Results of the Project on Monitoring and Feeding of Vultures in Usturt Nature Reserve, Kazakhstan

The report provides data on the results of monitoring of 3 species of scavenging birds (*Neophron percnopterus*, *Aegypius monachus* and *Gyps fulvus*) using the bait sites with cameratraps in Ustyurt Nature Reserve in Mangystau Province (Republic of Kazakhstan), obtained during the second phase of the project supported by the Rufford Foundation in 2018: https://www.rufford.org/projects/zhaskairat_nurmukhambetov_0. Nesting was confirmed for 4 pairs of Black Vulture and 2 pairs of Egyptian Vulture in the area. In the course of the project, for the first time in Kazakhstan, several photographs of the alive Persian Leopard (*Panthera pardus saxicolor*) were obtained, confirming the presence of the species in the Ustyurt Nature Reserve.

18. **Georgiy Shakula & Svetlana Baskakova.** The Large-billed Reed Warbler (*Acrocephalus orinus*) in Asia. Search continues

The article describes systematic status and diagnostic features of the Large-billed Reed Warbler *Acrocephalus orinus*. All known records of the Large-billed Reed Warbler in the World are given. The plan of future research is outlined.

19. **Askar Isabekov.** Awareness improvement and local people involving into Rare Birds conservation via Birdwatching Websites Network development

Birds of Kazakhstan (birds.kz) the first site of the network was launched in 2005. Now it contains more than 150 000 photos of 483 species of birds. Participants of project found 17 new species of birds in Kazakhstan. Since 2015, based on the same framework, we developed and launched websites for other countries of Central Asia and Caucasus, and also for some regions of Russia and China. Participation in the project is free. The total number of members registered in the network is more than 1000. Many students and teachers use the data from the network in the process of education. Some global and all local ecology organizations use the network database in researches, especially in researches of rare birds and exploring of special areas.

20. **Georgiy Shakula & Fedor Shakula.** The Menzbieri Marmot (*Marmota menzbieri*) in Kazakhstan. Results of the study and prospects of protection

The presentation consists 20 slides and describes the Menzbieri Marmot habitats and threats in Sayram-Ugam National Park. The current status on the marmot's population is stable, but the number of animals is much less then 50 years ago. The sites in the upper of Baldabrek and Maidantal rivers in Aksu-Jabagly Nature Reserve should be observed as well as isolated population of the species in Besh-Aral Nature Reserve in Kyrgyzstan.

Menzbieri Marmot is a narrow endemic of Western Tien Shan mountains and listed in IUCN Red Data book as "Vulnerable". The species occurs in Central Asia at the junction of three states: Kazakhstan, Uzbekistan and Kyrgyzstan - in the range of the alpine steppes on altitude of 2000-3500 m above sea level. Gentle slopes with smooth over meso-relief – moraines are the most favorable for marmot's habitats. They prefer small-earth soils, suitable for digging holes. Colonies are confined to springs, marshes and snowfields, where the animals are provided with a juicy plant food during the summer season.

Menzbieri Marmot is one of the smallest marmots. The color of the back is evenly brownish-brown, contrasting with light yellowish cheeks and belly. The top of the head is slightly lighter than the back; tail is dark, almost black, wide-striped. First year juveniles - even gray.

Menzbieri Marmot is a settled animal, which is characterized by only small seasonal movements. Each family has its own territory in 0,6-8,0 hectares. There are usually 2-10 individuals in the family. The duration of hibernation at altitudes up to 2600 m above sea level is about 7 months: from early September to late March - early April, and at an altitude of 2900 m above sea level - 8 months: from early September to late April - early May.

Nesting chambers of wintering burrows are located at a depth of 2.5-3 m. Den has 3-4 outlets. The first appearance of marmots on the surface after hibernation is preceded by digging up to 3-5, occasionally 8-10-meter layer of snow. They feed on grassy vegetation, graze throughout the daylight time with an indistinct peak of evening activity, which occurs at 6 pm.

Reproduces once a year. Matting takes place in March-May before the exit from the holes and immediately after awakening from hibernation. There are from 2 to 8, usually 2-4 cubs in one litter. Less than half of adult females take part in reproduction. Maturity is achieved at 2-4 years old, the litter is brought within 10-12 years. The maximum age in nature is 14 years. The reproduction rate is rather low for this group of rodents.

In Kazakhstan, it occurs in a very small area in the north-eastern part of the Karzhantau ridge on an area of 140 km², where the total population does not exceed 3000 animals. Interestingly that in the upper reach of the Saryagyr River, the area of the Menzbieri Marmot is joined to the area of the Red Marmot (*Marmota caudata*), a common and widely distributed Central Asian species. Hybrid individuals are known from this location.

Acknowledgment. I take this opportunity to express my gratitude to Rufford Small Grant Foundation, supporting my study and protection of Menzbieri Marmot in Sairam-Ugam National Park in 2013-2019.

21. **Ilya Smelyanskiy & Anna Barashkova.** Manul (*Otocolobus manul*) in Kazakhstan: distribution, conservation status and gaps in knowledge

The speaker told about the funded by the Rufford Foundation projects:

- Clarifying Conservation Status of Pallas's Cat in Kazakhstan, 2009-2010
- Creating a base for monitoring of Pallas's Cat in Kazakhstan, 2011-2012
- Pallas's Cat in Kazakhstan: from investigation to conservation, 2013-2014
- Pallas's Cat Conservation Status in the Zaissan Lake Area - Covering Blanks, 2014-2016
- Pallas's Cat in Kazakhstan: from investigation to conservation - Phase 2, 2017-2018
- Study of distribution of Felidae species on the Ustyurt plateau, 2017-2019.

The main threats for the Pallas's Cat are:

- Massive conversion of steppe grasslands into arable (habitat loss and disturbance);
- Over-grazing and disturbances caused by livestock and herders (dog attacks);
- Trade-driven hunting (poaching);
- Poisoning (via preys specifically);
- Steppe wild fires (habitat degradation);
- Development for mining and oil-and-gas extraction (habitat loss and degradation, disturbance).

The gaps are:

- Distribution: western and northern range boundaries; distribution in northern Tien Shan
- Population hotspots (important areas)
- Correct assessment of density and number
- Effect of main threats on population

Conservation Needs:

- Protected areas to save hotspots
- Monitoring for populations and threats



Fig. 12. Ilya Smelyanskiy on behalf of Anna Barashkova presented the report on Pallas's Cat in Kazakhstan distribution, conservation status and gaps in knowledge (RSG-2009-2017)

22. Mariya Gritsina & Timur Abduraupov. Some Thoughts on the Status of Pallas's Cat (*Otocolobus manul*) in the Mountainous Areas of the Republic of Uzbekistan

The report provides information about the results of the Rufford Small Grant Foundation project «Specification of the status of manul (*Otocolobus manul*) in Uzbekistan» implemented with additional financial support from OSME (Ornithological Society of the Middle East) in the framework of the project «Monitoring of IBA “Oygaing valley” and the adjoining territories, Uzbekistan». According to literary sources, Manul used to inhabit the Kyzylkum Desert, Ustyurt Plateau and southern (mountainous) part of Uzbekistan. This article also includes data obtained in the course of a study carried out with the support of Pallas's Cat International Conservation Alliance in the south of the country. The research was carried out between 2015 and 2017 in Western Tien Shan and the west of the Hissar-Alai region. The collected data was based on camera trapping and local people interviews. The expeditions were largely focused on collecting data on Turkestan Red Pika (*Ochotona rutila*) as one of the potential food objects for Manul and the distribution of Red Marmot (*Marmota caudata*) whose burrows can be used as shelters. As a result, the presence of Manul was not confirmed during the studies; however, some data were collected about key factors that are likely to limit the habitat of Manul in Uzbekistan. The status of Manul in the country is still unknown.



Fig. 13. Mariya Gritsina was a reporter on the Status of Pallas's Cat in the Mountainous Areas of the Republic of Uzbekistan topic (RSG-2015)

23. **Yuriy Yarovenko.** Strategy for preservation and restoration of the Persian Leopard (*Pantera pardus ciscaucasica*) in the Russian Eastern Caucasus (Dagestan)

The habitats of Leopard in the Caucasus are decreasing. According to the conducted in Dagestan research, due to the peculiarities of the relief and the inhabitation of 6 species of wild ungulates, the Leopard's population has remained. Measures are proposed to preserve and restore the leopard population.

24. **Georgiy Shakula.** Record of Cheetah (*Acinonyx jubatus venaticus* Griffith, 1821) in Aral Sea Area

Currently, the cheetah in Kazakhstan is officially considered an extinct species. However, in 2017, a live animal was encountered on the northern coast of the Aral Sea. Further study of the region, including camera-trapping, is needed to confirm the existence of the species in Kazakhstan.

25. **Maxim Kulemin, Nurbakhyt Abdukarimov & Dosbol Enkebaev.** The results of studying rodents in the mountains of the Turkestan Province of Kazakhstan

The report shows the results of small mammals trapping in the mountains of Talas Alatau (Aksu-Zhabagly Nature Reserve), Ugam range (Sayram-Ugam National Park) and Syrdaria Karatau range. The research was done with the goal to evaluate the current status of danger on infectious diseases with natural foci that are dangerous to humans and are transmitted by rodents. The list of caught and studied small mammals consists 24 species and includes 2 new ones for Aksu-Zhabagly Nature Reserve as Grey Rat (*Rattus norvegicus*) and Small Shrew (*Sorex minutus*).

The Round Tables session became the most interesting part of the Conference and did attract a lot of attention of participants. During the “**Community engagement into Biodiversity Conservation**” Round Table the issue “how far should we trust to the zoological data collected from local residents in the field surveys?” was raised.

On the “**Rufford Foundation as a Driver for Central Asia Biodiversity Research and Conservation**” Round Table session the participants did express their gratitude to the Rufford Foundation as a consolidating power to gather all together the field researches from the Central Asia and Caucasus geopolitical region.

The main output of this session is a signed by participants Collaboration Memorandum as a first step of the regional network creation for the biodiversity experts in Central Asia and the Caucasus to develop joint projects in a future.

Protected Areas Issues Round Table facilitated by Smatulla Jumanov – the Aksu-Jabagly Nature Reserve Vice-Director did illuminate the conservation problem of protected areas. For example, for Aksu-Jabagly Nature Reserve poaching is not the main threat more, but the increasing number of visitors (tourists) need to be managed to keep equilibrium in between wildlife conservation and commercial deal.

Other issue is about the regulation of visiting the Aksu-Zhabagly Nature Reserve for international scientific expeditions. Formally scientists are “tourists” for the Park and are under charge for the entrance fee. For the long-term expeditions, it may create the costs barrier, but the Nature Reserve administration can do nothing against the existing law. The discussion should be continued online to work out the proposal for the Ministry of Agriculture of Kazakhstan about the preferential treatment of visiting the reserve for outside scientists.

The certificates of participation as well as books on Kazakhstan biodiversity and small memory souvenirs were awarded to the speakers on the closing ceremony at the end of the second day.



Fig 14. The Certificate sample



Fig. 15. The books as the presents for participants

Late afternoon of the second day was fitted to outdoor excursion to the Mashat canyon to see the unique site with an only place in the World with wild growing Lemmers' Tulips in the blossom. More 60 other wild growing plant species were seen under guidance of Eugeniy Belousov – the local natural historian and patriarch of ecological tourism development in Aksu-Zhabagly. Many species of migrating birds were seen including Demoiselle Cranes and Pied Wheatear.



Fig. 16. The participants on the field visit to Mashat canyon – the only place with Lemmers Tulip growing in wild. 17 of March 2019

The third Conference day was dedicated to the horse riding trip to the Kshi-Kaindy Waterfall area in the Aksu-Zhabagly Biosphere Nature Reserve. Although the mountains were still covered by snow the participants had a chance to meet Mountain Goats – more 50 individuals at all and took the high resolution pictures of them from the short distance. Non-frightened animals are proof of well-organized guard against poaching. Birds migration was observed as well.

On the fourth day some participants were organized for the fishing study tour to the Arys, Kulan and Balykchy rivers and other group did attend the Shymkent city tour with the historical Museum and the Zoo visits. We all hope to meet altogether again one day for further discussions and experience sharing on our work for the Biodiversity Conservation.

The participant's report should be published as a book in 226 pages A5 format – in English and Russian as a regular (number 12) Issue of the Works of Aksu-Zhabagly Nature Reserve. The book is in progress and will be posted to the participants by regular mail. All the participants had a look at the model of the Conference Proceedings book, we already have discussed with the National Park Director the technical details and shared budget and the book should be issued in April and distributed in May.

The photographer took plenty great pictures.



Fig. 17. Turkistan Tulip (*Tulipa turkestanica*) – one of the early blossoming flowers of Aksu-Zhabagly Nature Reserve area

We are working with the web-site of the created on the Conference network of the Central Asian and Caucasus biodiversity experts. The beta-version is available here:
<https://dianashakula.wixsite.com/ruffordconference>



Fig. 18. The cover sheet of the Conference Proceedings book



Fig 19. Souvenirs for participants with the Rufford Foundation logo.

On behalf of the Conference participants and biodiversity experts of Central Asia and Caucasus we would like to say thank you to the Rufford Foundation and Josh Cole – the Grants Director for sponsoring the research and conservation activity in the region and for the great opportunity to get altogether for sharing ideas and regional experts network creation.

The Participants feedback:

Karen Aghababyan, Armenia. Dear Colleagues! It was very nice to meet you and learn about the interesting work that you do. I would be very glad to new meetings. If there are any questions on which we can share our experience - please contact me and my colleagues will be happy to respond. Also, if any of you decide to visit Armenia, please contact me.

Dear colleagues from Kazakhstan. I hope that the political changes that have occurred during these days will have a positive effect on the life and economy of the country. Is there a certain symbolism traced in this - during the conference, which is actively fighting against corruption, the current government resigns.

This is the first time TSE NGO participated in International Conference "The Rufford Foundation for biodiversity research and conservation in Central Asia and Caucasus". The meeting held in Aksu-Zhabagly Biosphere Nature Reserve, Kazakhstan and gathered together the biodiversity experts from 6 countries. TSE NGO presented the project related to development of network of Prime Butterfly Areas in Armenia, and made contribution in round-table discussions "Involvement of local communities in nature conservation", "Issues of Protected Areas", "Obstacles and opportunities of collaboration between nature protection organizations".

Ilya Smelyanskiy, Russia. The event did turn out to be historical, though not according to our merit (or fault), I mean the resignation of the President of Kazakhstan. Well, it was necessary to guess so. This is because once in 30 years this moment falls out. And once again many thanks to the organizers. I hope they had the opportunity to rest after our invasion.

Good luck everyone. All the best!

Alyona Koshkina, Kazakhstan. Thank to the organizers for the warm welcome and wonderful excursions that were like a breath of fresh air. Hope to see you again soon! Pictures are here: <https://www.dropbox.com/sh/isk83aggwys4ul0/AABIPXfCMOmbcK4ZUIQC7gsZa?dl=0>

The Conference news was posted in the Rufford Foundation granters network member web-site: <https://www.abcc-am.org/news.html>

Maria Gritsina, Uzbekistan. Thanks again for the warm welcome!

Timur Abduraupov, Uzbekistan. Thank you so much for organizing such an interesting event. It was very cool and helpful!

Maxim Kulemin, Kazakhstan. Thank you for the warm welcome and good feedback about my report!

Svetlana Baskakova, Kazakhstan. It was a great event. I am very glad that we managed to bring together such diverse and interesting people, cooperation with which will be continued in the form of joint publications, information exchange and expeditions.

Diana Shakula, Kazakhstan. It was hard work, but I am happy we did it.