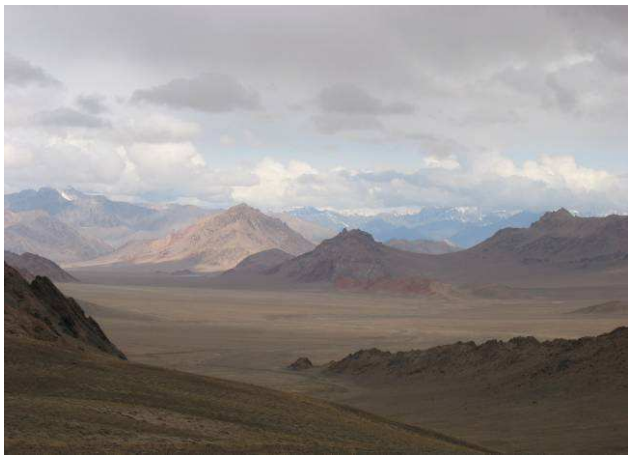
CENTRAL ASIA SNOW LEOPARD WORKSHOP, BISHKEK, 19-21 JUNE 2006.

MEETING REPORT




FAUNA & FLORA INTERNATIONAL

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Introduction

The Workshop was held in the Ak Keme Hotel, Bishkek, Kyrgyzstan, from 19-21 June 2006. It was attended by representatives from three Central Asian range states (Kyrgyzstan, Tajikistan, Uzbekistan) and from several international organisations. Institutions represented were: Fauna and Flora International (FFI); Snow Leopard Trust (SLT); German Nature Protection Organization (NABU); Institute of Zoology, Kyrgyzstan Academy of Sciences; Institute of Zoology and Parasitology, Tajikistan Academy of Sciences; Institute of Zoology, Uzbekistan Academy of Sciences; Chatkal Nature Reserve; Sarychat Ertash Nature Reserve; and Snow Leopard Network. Appendix 1 lists participants and their affiliation. Representatives from a local NGO, Bashat-CBF, and local SLT staff took part in informal discussions at one lunch and one dinner. Workshop sessions were chaired by David Mallon (SLN Steering Committee member).

Session 1: Introductory

Participants gave presentations, followed by questions and discussion, on the following topics. Copies of presentations were distributed to delegates at the end of the workshop.

- Snow Leopard work in Sarychat Ertash Zapovednik, Kyrgyzstan
- Snow Leopard conservation work in Kyrgyzstan by NABU and “Gruppa Bars”
- Snow Leopard in Tajikistan (status, threats, protected areas, conservation)
- Snow Leopard in Uzbekistan (status, threats, protected areas, conservation)
- SLT role and global programme
- FFI Eurasia Programme

Films were shown on:

- Snow Leopard in NABU rehabilitation centre
- Surveys and camera-trapping in Sarychat Ertash NR

Session 2: Review of status, distribution and numbers

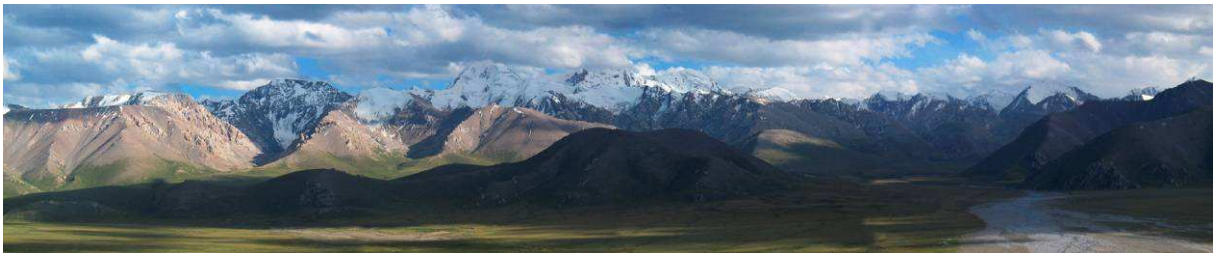
Discussion was based on a summary of snow leopard status in Central Asia, extracted from a paper on global status prepared by Rodney Jackson for the Snow Leopard Survival Summit in 2002. Information on distribution, numbers and status of snow leopards for each range state was reviewed, updated and amended where information was available. Some knowledge gaps were identified. Additional information on Kazakhstan was provided by Valentina Toropova and on Xinjiang by Tom McCarthy.

T.McCarthy showed a draft version of a new distribution map prepared jointly by SLT, SLN and the Snow Leopard Conservancy (SLC) following the Snow Leopard Survival Summit. This map is knowledge-based, unlike previous maps of snow leopard global range which were derived from GIS models or inferred from elevation contours. The section of the map dealing with Central Asia was discussed by range state and in an overall regional context, and some amendments were noted.

Recent publications on snow leopards in Central Asia were listed (Appendix 2) and copied for later transfer to the SLN bibliography.

Kyrgyzstan (T.Harder, V.Radchenko, V.Toropova, A.Vereshchagin)

The figure of 65,800km^2 for snow leopard range in Kyrgyzstan, calculated by E. Koshkarev, was agreed to be more realistic than the higher alternative of 126,000km^2 included in the discussion paper. Protected areas were estimated to cover 15-20% of this, a substantial upward revision of the figure in the discussion paper. The Institute of Zoology and NABU jointly estimated a population of 300-350 animals in 2005, up to the Fergana Range but excluding the south-west of the country where no surveys have been carried out. According to protected area rangers and border guards a few SL are present in the Alai and Trans-Alai ranges of the south-west, but no information is available on population size or current status in these localities. The population had been estimated at 1200 in 1985.



A detailed survey of snow leopard distribution in Kyrgyzstan was carried out in 1989 by Evgeny Koshkarev. VT has repeated Koshkarev's survey, visiting all the same localities, and replicating as exactly as possible his methods: sign quantities in all areas were 2.5-3 times lower. Gruppa Bars is monitoring 5 sites and has carried out more detailed research over the last 5 years using sign surveys and SLIMS transects. A declining tendency is clear in snow leopards as well as ibex and argali. By way of example, VR said that formerly, sightings of snow leopards were regularly reported, whereas now only their field signs are observed. According to national hunting organisations, ibex numbered 66,000 in the 1990s and herds of up to 300 could be seen, though 150-180 were more usual. Now the maximum group size seen is 10-15. At snow leopard monitoring sites in Terskei Alatau, sign quantities are down by 2.5-3 times.

Construction of the road from Bishkek to Osh, completed in 2005, has caused a lot of disturbance, causing ibex to move away and inevitably displacing snow leopards too. A planned new road from Almaty to Cholpon-ata will cross a previously remote part of the mountains and allow poachers access to the area all year round.

The best area for snow leopards at present is from the eastern part of the Kokshaal Tau range up to and including the Sary Jaz basin in the east of the country. No herders live here permanently though some mining operations are in place. There is a need to extend the Issyk Kul Biosphere Reserve to include the Terskei Alatau and Sary Jaz ranges. A proposal is currently being considered by the government. At present, the district government has agreed to add an area of 60,000ha to the Sarychat-Ertash Zapovednik and the size of the new area may be increased to 200,000ha.

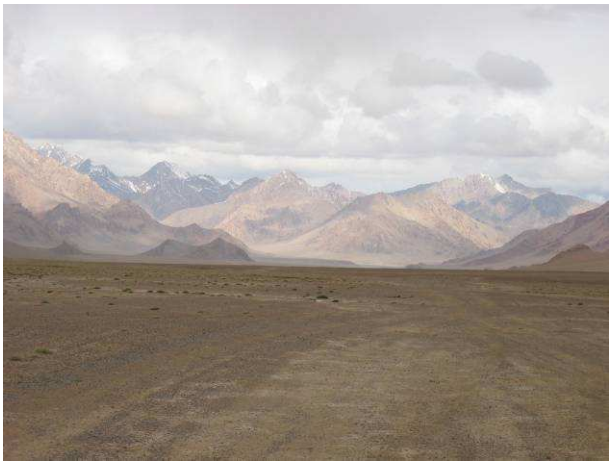
Kazakhstan

The latest population figures are from Zhiryakov & Baidavletov (2002) who estimated a total of 100-110 snow leopards in Kazakhstan, including 30-35 in Almatinskiy reserve and adjoining *zakaznik*. In 1998, Kazakh and Kyrgyz colleagues carried out a joint survey of the Kyrgyz Range on the border between the two countries. Snow leopards are present and it is considered that the population here can be protected.

Tajikistan (A.Saidov)

The latest population estimates for 2003 is 200-220 snow leopards (Muratov, 2004). They are widely distributed across the country in the Pamir and Pamir-Alai ranges. Prof Saidov has stratified distribution into three categories: high, low, and medium density, as follows:

- High: Rushan, Yazgulem, Vanch, Shugnan, Ishkashim, Sarykol ranges and the Trans-Alai Range along the Kyrgyz border.
- Medium: Darvaz, Alichur, Karacheginskii and Peter the First ranges.
- Low: Khozratisho, Vaksh, Gissar-Zeravshan ranges and remainder of the Eastern Pamirs.
- No information: Turkestan Range (known to be present on the Uzbekistan side); Kurama Range (absent on the Uzbekistan side – A. Esipov).



Big declines in mountain ungulate species (ibex, argali, markhor) are reported (Table 1).

Table 1: Ungulate population declines in Tajikistan

Species	**1960**	**1983**	**2001**
Ibex	72,000	41,000	17,000
Markhor	1,000	400	130
Argali	70,000	25,000	3,500-10,000

About 140 snow leopards are estimated to live in the huge Tajik NP (26,000km^2). There is no resident human population but some mining operations take place. Snow leopards occur in a further seven protected areas (Table 2), though two of these are too small to make a significant contribution to snow leopard conservation. Total area covered by these protected areas is 28,474km^2 which represents approximately 36% of the total area of estimated habitat (78,440 km^2). This is an upward revision of the figure (13.3%) in the discussion paper.

Table 2: Protected areas in Tajikistan with snow leopards

	Area (km^2)	Estimated no. of SL
Tajik National Park	26,000	140
Zorkul *zapovednik*	877	5-6
Dashtidzhum *zapovednik*	197	15-18
Romit *zapovednik*	161	7-12
Mozkol *zakaznik*	669	8
Dashtidzhum *zakaznik*	501	6-7
Shirkent Historic-nature Park	31	2
Sarykhosor Nature Park	38	2
TOTAL	**28,474**	**185-195**

Uzbekistan (A.Esipov)

Total area occupied is estimated at 10,000km^2, representing about 0.5% of the global range. Distribution is in two parts: Tien Shan (Ugam, Chatkal, Pskem ranges) and Pamir-Alai (Turkestan, Zeravshan, Hissar ranges). These two areas are separated by the wide and heavily-developed Fergana Valley. Surveys in the Kuraminsk Range have found no signs of snow leopards. Population estimates are still 30-50 snow leopards. Nearly all occur in protected areas, except in the south where the area is effectively conserved by military use and mines. The protected areas are: Chatkal Reserve, Gissar Reserve, Zaamin Reserve, Ugam-Chatkal NP, Zaamin NP. Together these PAs cover about 65% of SL range in Uzbekistan, a substantial upward revision of the figure (5.8%) in the discussion paper.

SL records are entered onto the Uzbekistan snow leopard database. This now contains 98 records dating from 1970 to 2004.

China (Xinjiang) (T.McCarthy)

Recent surveys by SLT and partners had found no signs of snow leopards in two parts of the Tien Shan range. Positive evidence, including camera-trap photos, has been obtained from a study area, in and around Tomur Feng Nature Reserve.

Session 3: Threats

Firstly, the main threats to snow leopards in each range state were discussed and entered onto flip charts, as listed below:

Kyrgyzstan

- Hunting of ungulates and snow leopards. Number and quality of weapons have both increased.
- Mining
- Tourism
- Inadequate law enforcement
- Overgrazing

Uzbekistan

- Poaching of snow leopards and of ungulates
- Disturbance
- Growth of the human population and poverty
- Military activity/landmines (on sectors of Tajik border)

Tajikistan

- Hunting of snow leopards; 1996-1998 an estimated 50 were killed; from 2000, an average of 7-8 estimated to be killed annually
- Hunting of ungulates. All prey species have declined sharply. Although most weapons were confiscated in 1997, some poaching continues. Legal trophy hunting has increased and it is not clear whether quotas are scientifically based or are adhered to in every case
- Tourism and associated disturbance have increased since 2003
- Construction of the Dushanbe-Khorog-Karakoram Highway has degraded habitat over a wide area and increased disturbance
- Overgrazing is increasing

These threats were then compared to the regional threat analysis that was carried out for the Snow Leopard Survival Strategy in 2002. Threats by range state were categorised in the same way (high, medium, low) and entered into a modified version of the threat table used in SLSS (Table 3). Tom McCarthy provided input for Xinjiang.

Modifications made to the table were: (1) addition of a new threat 4.4 *Tourism*; and (2) addition of *Overgrazing* to threat 1.3. It was agreed that both issues were a regional threat to snow leopards.

Finally, threats were discussed at a region-wide level. The main points arising from this discussion were:

- Legal frameworks in Central Asia are generally adequate, but lack of effective enforcement is a major issue for all range states. This results from a lack of political will and awareness, low prioritization of biodiversity conservation and lack of resources (number of trained personnel, vehicles, equipment, operational funding).
- Illegal hunting, is a major threat. In part this is poverty-driven. Sometimes, hunting permits are issued in contravention to laws on wildlife protection or high-level officials are involved in hunting. Legal trophy hunting quotas may be regularly exceeded or be based on unrealistic estimations of prey species numbers.
- The market for bones and pelts is a continuing stimulus to illegal killing of snow leopards so action is urgently needed at the consumer end of the market. Border checks on trucks leaving the region are usually ineffective facilitating export.
- Under-funding is a chronic problem affecting all aspects of conservation of snow leopards, and biodiversity in general, including surveys, management and research.
- Lack of trans-boundary cooperation within the region is an obstacle to conservation, despite recent common history, legal and protection systems and language.
- Human population growth and poverty impose an increasing threat in all areas.
- Retaliatory killing by livestock owners was confirmed as a low level threat in Central Asia, in contrast to other parts of snow leopard's global range.

Table 3: Prioritized Threats to Snow Leopard Survival in Central Asia by Country

[H= high, M= medium, L=low, ↑ = increasing]				
Threats by Category	**KG**	**UZ**	**TJ**	**China (Xin-jiang)**
Category 1: Habitat and Prey Related				
1.1 Habitat Degradation and Fragmentation	**M ↑**	**L**	**M**	**M**
1.2 Reduction of Natural Prey due to Illegal Hunting	**H**	**H**	**M**	**L**
1.3 Reduction of Natural Prey due to Competition with Livestock/Overgrazing	**M ↑**	**M**	**M ↑**	**M**
1.4 Reduction of Natural Prey due to Legal Hunting	**M**	**L**	**M**	**L**
1.5 Reduction of Natural Prey due to Disease	**M**	**H[1]**	**M**	**M**
1.6 Fencing that Disrupts Natural Migration	**L**	**L**	**M[2]**	**L**
Category 2: Direct Killing or Removal of Snow Leopards				
2.1 Killing of Snow Leopards in Retribution for Livestock depredation	**L**	**L**	**L**	**M**
2.2 Poaching Snow Leopards for Trade in Hides or Bones	**H**	**M**	**M**	**H**
2.3 Zoo and Museum Collection of Live Animals	**H**	**M**	**L**	**M**
2.4 Traditional Hunting of Snow Leopards	**M**	**M**	**M**	**L**
2.5 Secondary Poisoning and Trapping of Snow Leopards	**L**	**L**	**L**	**L**
2.6 Diseases of Snow Leopards	**L[3]**	**L[3]**	**L[3]**	**L[3]**
Category 3: Policy and Awareness				
3.1 Lack of Appropriate Policy	**L**	**L**	**L**	**M**
3.2 Lack of Effective Enforcement	**H/M[4]**	**H**	**H**	**H**
3.3 Lack of Trans-boundary Cooperation	**H**	**M**	**H**	**H**
3.4 Lack of Institutional Capacity	**H[5]**	**M**	**M**	**M**
3.5 Lack of Awareness Among Local People	**M**	**M**	**M**	**M**
3.6 Lack of Awareness Among Policy Makers	**M**	**M**	**M**	**H**
Category 4: Other Issues				
4.1 War and Related Military Activities	**L**	**H**	**L**	**L**
4.2 Climate Change	**L**	**L**	**M[6]**	**L**
4.3 Human Population Growth or Poverty (indirect threat)	**H**	**H**	**H**	**H**
4.4 Tourism – disturbance & infrastructure	**L ↑**	**L**	**L ↑**	**L**

[1] one episode resulted in heavy mortality
[2] fencing on Chinese border
[3] no information
[4] High in south, Medium in north
[5] NGO capacity much better
[6] drying and degradation of pastures affecting argali

Session 4: Conservation Action

Current Snow Leopard conservation measures were listed by range state, and discussed.

Kyrgyzstan

- NABU active in SL conservation since 1999
  - Anti-poaching "Gruppa Bars"
  - Scientific research and monitoring (with Institute of Zoology)
  - Work with local communities - education and awareness etc
  - Eco-camps on Issyk-Kul with a programme on SL organised for children from area around SCEZ (with ISLT, Peace Corps)
  - Awareness-raising in 230 villages plus mobile photo exhibition
  - Posters, calendars produced and distributed
  - Eco-base established in Bishkek since 2006 for training and school education
  - All cases of arrest of poachers given maximum publicity
  - Rehabilitation Centre

- Snow Leopard Trust
  - Survey and training work in several areas, inc. anti-poaching in SCEZ
  - Handicraft/livelihood initiatives around SCEZ

- Fauna & Flora International
  - Working with SCEZ to increase capacity in biodiversity monitoring, management planning and anti-poaching enforcement
  - Handicraft/small business development around Issyk-Kul & Naryn oblasts
  - Community engagement around SCEZ

Actions needed:

1. Survey SW Kyrgyzstan for snow leopard presence and prey status
2. Extend anti-poaching initiatives to this area
3. Progress transboundary initiatives

Tajikistan

- WCS has carried out Snow leopard surveys in several areas
- Snow Leopard Trust are planning field surveys in summer 2006, centred on the Tajik NP
- Snow Leopard Conservancy has worked since 2004 in Murgab area, in cooperation with Swiss Agency for Mountain Development
- A French NGO (ACTED) in Murgab is working on ecotourism and educational initiatives (in contact with SLC)
- WWF has been working on a strategy for mountain areas, though without a specific component on snow leopards.

Actions needed:

4. Priority is detailed research on all the threats listed above
5. Development of Snow leopard monitoring guidelines
6. Training and awareness for: protected area staff, professional biologists and students, local communities
7. Develop a National SL conservation strategy (as done for Uzbekistan)

Uzbekistan

- The legal base for protection is good but the state inspection service is greatly under-funded, with low salaries and no funding for fuel or equipment. As a consequence its activities are severely limited.
- 4-5 people in the Institute of Zoology and in nature reserves are working on Snow leopard research, but remain dependent on project funding.
- SLIMS transects are carried out regularly.
- An evaluation of snow leopard and prey base in the Gissar Nature Reserve has been carried out.
- A Central Asian Snow Leopard Bibliography was prepared in 2005 with support from the Snow Leopard Trust. This lists 305 publications in Russian dated 1873 to 2004 with an English abstract, all are now available on the SLN website.

Actions needed:

8. Increased training of nature reserve staff in field techniques
9. A socio-economic survey of the causes of hunting of snow leopards and prey
10. Increased regional cooperation

China (Xinjiang)

- SLT and local partners are conducting surveys, transects and camera trapping

Afghanistan (Wakhan)

- A 3-year project funded by USAID and operated by the Wildlife Conservation Society (WCS) in Wakhan, the northern part of which is biogeographically part of the Pamir region. The Snow Leopard Trust will be conducting wildlife surveys and training as part of this.

Transboundary initiatives

Recent, current and proposed Central Asian transboundary initiatives were listed & discussed. The principal projects comprised:

- West Tien Shan GEF Project (Kazakhstan, Kyrgyzstan, Uzbekistan). Recently concluded.
    - main result was enlargements of existing nature reserves
    - a bio-regional plan was developed
    - staff were well trained and had the opportunity to visit PAs in other countries.
    - atlas of biodiversity produced in Russian and English
    - maps of all threatened species produced
    - ranger teams were well-equipped

- Pamir 'Peace Park'. A WCS proposal that would cover approx 80,000km^2 and 3 existing protected areas: Zurkul (Tajikistan); Taxkorgan (China); Khunjerab (Pakistan). A meeting is scheduled for Sept 2006 in Urumchi to discuss this proposal.

- Pamir-Alai Transfrontier Conservation Area (Kyrgyzstan-Tajikistan). An EU/TACIS funded initiative, proposed in 2005 and with a recently announced call for interest.

- Joint work has been carried out by Kazakh and Kyrgyz teams along the border ranges lying between Almaty and Issyk-Kul; a GEF funding application covering the area is currently under consideration.

- A Tien Shan transboundary reserve encompassing parts of east Kyrgyzstan, Kazakhstan and China has been proposed, but details and current status of the proposal are vague. Initiatives in this area were agreed to be beneficial.

Asia-Irbis

This regional initiative was summarised by A Esipov. It covers 4 countries in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan) and has 10 priority activities. These include establishing a regional database of SL and prey, a regional conservation strategy, training, and publicity. Since its inception, some meetings were held, and joint projects were carried out, but lack of funding has hindered further progress. There have also been bureaucratic issues concerning official registration of the organisation. Currently Asia-Irbis is relatively inactive.

Session 5: Future Activities and Priorities

Future activities and priorities were discussed at length, focusing on the regional dimension. There was general agreement that this meeting had been successful in fostering regional cooperation and that further regional cooperation was desirable and would be beneficial for snow leopard conservation.

To this end it was agreed that re-launching and developing Asia-Irbis offered the most effective way of increasing cooperation within the region and further snow leopard conservation at the strategic level. Therefore:

- The Asia-Irbis network should be reactivated as a primary step
- Regional meetings should be held at regular intervals, in each range state in turn
- A regional SL strategy and action plan should be developed
- Consideration should be given to an SLN facility providing Russian-English and English-Russian translation to increase involvement of non-English speakers in the region into the network (a provisional assessment suggested that the costs involved would be low)

During an extended discussion on practical, on-the-ground initiatives, two broad views emerged:

- NABU felt that intensifying and extending anti-poaching patrols offered the most effective means of conserving snow leopards, especially in the short-term and NABU offered assistance with structures and training for Anti-poaching Units, based on the Kyrgyz model, if funding were available.

- The Snow Leopard Trust and others emphasised an integrated approach including training, education and livelihood support, as well as effective law enforcement.

Ultimately, all agreed that the two approaches were in effect complementary and that all successful measures (anti-poaching, training, education and awareness, livelihood enhancement) should be extended to all parts of the region to effect conservation in the long-term.

Appendix 1

Central Asia Snow Leopard Workshop - Participant List

Ms Liesje Birchenough	FFI Eurasia Programme Manager
Ms Nuska Botoiarova	FFI Central Asia Projects Coordinator
Dr Alexander Esipov	Uzbekistan; Institute of Zoology, Academy of Sciences and Director,Chatkal Biosphere Nature Reserve
Mr Thorsten Harder	NABU, Kyrgyzstan
Dr David Mallon	Snow Leopard Network Steering Committee
Dr Tom McCarthy	Conservation Director, Snow Leopard Trust
Mr Vladimir Radchenko	NABU Kyrgyzstan, Head of “Gruppa Bars”
Dr Abdusattor Saidov	Tajikistan, Director of Institute of Zoology and Parasitology of Academy of Sciences
Dr Valentina Toropova	NABU, Kyrgyzstan and Institute of Zoology, Academy of Sciences
Dr Alexander Vereshchagin	Kyrgyzstan, Deputy Director, Sarychat-Ertash Nature Reserve
Ms Lyudmila Matveeva	Translator

Appendix 2

Recent publications on snow leopards in Central Asia (all in Russian)

Baidavletov, R.Zh. 1998-1999. On predation by the snow leopard (*Uncia uncia* Schreber) on moose (*Alces alces* L.). *Selevinia* 1998-1999: 235.

Bekmyrzaev, E.A. 2005. Distribution, numbers and monitoring of carnivorous mammals included in the Red Book on the territory of Besh-Aral nature reserve. In: Mursaliyev, T.S., Mambetaliev, U.A., Shukurov, E.Dj. and Surappaeva, V.M. (eds). Pp. 191-194. *Works of the zapovedniks of Kyrgyzstan*.

Muratov, R.Sh. 2004. On the condition of the population of snow leopard in Tajikistan.

Sagymbaev, S. and Sagymbaev, N. 2005. On the condition and numbers of large mammals in the Kungei and Terskei Ala-Too Ranges. *Issledovaniya bioraznoobraziya na BT "Issyk-Kul"* 3: 84-85.

Toropova, V.I., Radchenko, V.G., Rasakhun. Kyzy A. and Sagymbaev, S. 2005. Results of monitoring of snow leopard over a five year period (Kirgiz, Terskei and Kungei Ala-Too ranges). *Issledovaniya bioraznoobraziya na BT "Issyk-Kul"* 3: 85-86.

Zhiryakov, V.A. and Baidavletov, R.Zh. 2002. Ecology and behaviour of the snow leopard in Kazakhstan. *Selevinia* 2002: 1-4.