

**Қазақстанбиоалуантүр
лілікті сақтау ассоциациясы
(ҚБСА)**



**Kazakhstan association for
conservation of biodiversity
(KACB)**

Report
on the project of «Carlsberg Kazakhstan» LLP
«Conservancy of snow leopard (Irbis) as national symbol of Kazakhstan» («Irbis»
Project) for 2015 year



Almaty, 2015

Introduction

The snow leopard or the ounce (*Uncia uncia*) is a member of the cat family inhabiting the mountains of Central and South Asia. The specimen is red-listed by the International Union for the Conservation of Nature Resources (IUCN) under the status of “endangered” in Annex 1 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), in Appendix I of the Convention on Migratory Species of Animals (CMS), and also in the national Red Books and lists of all 12 countries of its range - Kazakhstan, Kyrgyz Republic, Uzbekistan, Tajikistan, Russia, Mongolia, China, India, Pakistan, Afghanistan, Nepal and Bhutan.

In June 2014, at the GSLEP National Coordinators Workshop held in Kyrgyzstan, the two key areas: the Northern Tien Shan and the Zhetysu (Dzungarian) Ala Tau were nominated from Kazakhstan to participate in the Global Program to create sustainable snow leopard populations by 2020. The basic criteria for the choice thereof are the relatively better safety of the snow leopard and its prey items as compared to the other regions of Kazakhstan.

The level of knowledge on the snow leopard in Kazakhstan like in other countries of its range remains low. Owing to the low density of the snow leopard population, the inaccessibility of habitats and the secretive way of life, the important aspects of biology, such as the spatial structure of the range, the causes of seasonal and other migrations, methods for estimating the population size, individual territories, prey item specialization, relationships with other predators still remain understudied that makes it difficult to The Kazakhstan Association for Conservation of Biodiversity (KACB) performs work under the project of the “Preservation of the snow leopard (ounce) as a national symbol of Kazakhstan” (“Ounce” Project) (2015) being implemented with the assistance of Carlsberg Kazakhstan LLP (Carlsberg Kazakhstan). The main field work and data collection was carried out within the Dzungarian Ala Tau State National Natural Park (hereinafter referred to as the “SNNP”) of the Committee of Forestry and Wildlife of the Ministry of Agriculture (hereinafter referred to as the “CFW of MA of RK”). The area of the National Park is 356 022 ha. Since March of 2015, Toktin Reserve has been assigned to the Dzungarian Ala Tau SNNP with an area of 187,000 ha.

The main project mission is to conduct studies as related to the snow leopard and to draw up recommendations on the improvement of protection of the specimen within the Dzungarian Ala Tau. All works are carried out in accordance with the “Action Plan for the Study and Preservation of the Snow Leopard in Kazakhstan for 2015-2020” as approved by the CFW in 2014.

Field work was carried out under the generally accepted methods of ecological and zoological research. In addition to the traditional and generally accepted methods, methods of automatic photo and video recording of animals (photo traps) were applied. Besides, data was collected by the method of questioning inspectors of the Special Protected Natural Areas and locals.

The following KACB employees were involved in the project: S.L. Sklyarenko, Cand. Sc. {Biology} – director,

O.Y. Lukanovskiy – executive in charge, T.B. Kissebayev – monitoring specialist.

The expected project results were as follows:

1. 50 photo traps were acquired to study the snow leopard and also those animals, which constituted its prey item base and competitors.
2. Three field expeditions were carried out (in the spring, summer and autumn of 2015), during which some data was collected by using photo traps and questioning local people.
3. Such data as gathered over 2015 were summarized and analyzed.
4. Recommendations were drawn up for the CFW on for the preservation of the snow leopard in the Dzungarian Ala Tau SNNP.

The results of the project work over 2015 are given below. The results of the survey of the potential snow leopard habitats within the Special Protected Natural Areas under the project are given.

Field expeditions

Field trip over the period of April 20 May 8, 2015.

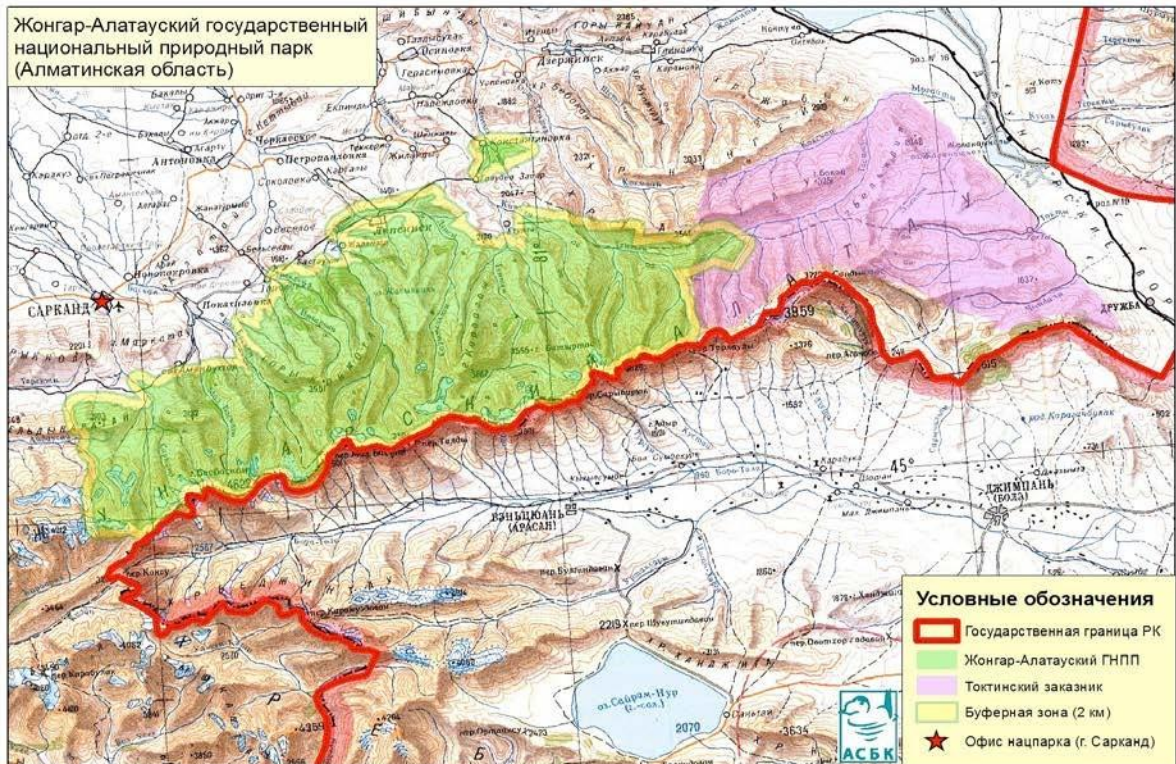
Participants from Karlsberg Kazakhstan LLP: S. Sizionov.

KACB Participants: O.Y. Lukanovskiy (junior research scientist, head of the group), T.B. Kissebayev (monitoring specialist).

Participants from the Dzungarian Ala Tau SNNP: S. Tushkenov (head of the wild life protection department).

Moreover, the film crew of the TouchMuch Agency took part in the expedition, which shot a film about the snow leopard and the work of researchers Tasks of the trip:

- 1) To survey the snow leopard habitats,
- 2) To install photo traps for studying the biology of the snow leopard and other animal species,
- 3) To question locals and SNNP personnel (inspectors, hunting specialists) about encounters with snow leopards and their traces by marking points on contour maps,
- 4) To assist the film crew in shooting a film,
- 5) To sign a cooperation agreement between the KASB and the Dzungarian Ala Tau SNNP.
- 6) The expedition's route: Almaty City – Town of Sarkand – Wintering Place of Sarybokter – Village of Amanbokter – Town of Sarkand – Almaty City.



Places of work: areas of the Dzungarian Ala Tau SNNP and the Toktin Reserve, Almaty Oblast.

Toktin Reserve area (Dzungarian Ala Tau). In the relief of the terrain, low mountains with gentle slopes predominate, which the wild sheep (argali) likes more than the mountain goat (the basic prey item of the snow leopard). However, in the course of the work, such places were found as suitable to install photo traps for a snow leopard. In addition, both wild sheep and mountain goats were encountered. In addition, there was a lot of skulls of mountain goats, many of which had characteristic signs of death caused by people (the cranial vertebra was missing), and used shell cases of various calibers. Unlike the main area of the Dzungarian Ala Tau SNNP, the Toktin Reserve area has a low status of protection and is actually protected very badly. There were winter and fresh wolf feces abundantly (the wolf can insignificantly compete with the snow leopard for prey item resources). There were installed 10 photo traps there.



The area of the Dzungarian Ala Tau SNNP. The work was carried out jointly with the film crew. The relief of the terrain is characterized there by medium mountains (2500 m and above), and there are steep slopes, rocks, screes. There are trails of mountain goats and their feces. There was also winter wolf excrement. 8 photo traps were installed there. After the departure of the film crew, the work was continued, and another 7 photo traps were installed.

The final result was as follows: in total, 25 photo traps were installed in the snow leopard habitats in the Dzungarian Ala Tau SNNP and the Toktin Reserve, the project was submitted to the SNNP management, an a cooperation agreement was signed with the National Park.

Field trip over the period of July 2 – 19, 2015.

Participants from Karlsberg Kazakhstan LLP: S. Sizionov.

KACB Participants: O.Y. Lukanovskiy (junior research scientist, head of the group), T.B. Kissebayev (monitoring specialist).

Participants from the Dzungarian Ala Tau SNNP: S. Tushkenov (head of the wild life protection department), and T. Senkeyev (state inspector).

Moreover, the film crew of the TouchMuch Agency took part in the expedition, which shot a film about the snow leopard and the work of researchers.

Tasks of the trip:

- 1) To remove photo traps installed during the first expedition,
- 2) To survey the snow leopard habitats,
- 3) To install new photo traps,
- 4) To question locals and SNNP personnel (inspectors, hunting specialists) about encounters with snow leopards and their traces,
- 5) To assist the film crew in shooting a film.

The expedition's route: Almaty City – Town of Sarkand – Wintering Place of Sarybokter – Village of Kabanbai - Village of Amanbokter – Town of Sarkand – Almaty City.

Places of work: areas of the Dzungarian Ala Tau SNNP and the Toktin Reserve, Almaty Oblast.

Photo traps installed within the Toktin Reserve during April 23 to April 24, 2015, operated there until July 11 - July 12 (79 days). During that time, a snow leopard female was recorded with a one and a half year-old cub (three times) and a single adult male. Furthermore, some other animals were photographed: bears, wolves, martens, foxes, marmots, ground squirrels, snowcocks, and also a lot of mountain goats - the basic prey items of the snow leopard. Although there are species competing with the snow leopard for prey item resources (wolf), the competition is insignificant. At the same time, the abundance of prey item resources, both the principal (tek) and

secondary, seasonal ones (marmot, ground squirrel, snowcock) - creates favorable conditions for the snow leopard existence. This factor as well as the remoteness from large inhabited areas and relatively well-preserved habitats, explain the higher snow leopard population in that area (as confirmed by a survey of the local people). However, the insufficient protection and, as a result, the uncontrolled poaching (mainly for mountain goats), the increase in the availability of transport vehicles with a good cross-country ability for poachers (and “spontaneous” hunters) lead to a gradual decrease in the population level of the Tek and the snow leopard itself.

Photo traps, which operated in the National Park were installed on April 29 - 30, 2015, and were removed on July 17, having operated 78 - 79 days each. During that time, however, no snow leopards were photographed but only few of mountain goats. Although earlier (in 2014) some traces of a snow leopard were detected there, it is obvious that its population is low there. Probably, the reason is the proximity of the village and, as a consequence, the grazing and hunting of the locals (as evidenced by the state of the vegetation cover, empty cartridge cases and rubbish).

Frequency of recording snow leopards and other mammals and birds (prey items, competitors) by photo traps in the Dzungarian Ala Tau in April-July of 2015.

Species	Level above sea, m	Number of photo trap-days	Number of photo catches	Average indicator of recording encounters per 100 photo trap - days
Snow leopard	1450 – 2000	78	3	3,8
Wolf	1450 – 1700	78	2	2,6
Marten	1750	78	1	1,3
Fox	1450	78	1	1,3
Bear	1450	78	1	1,3
Marmot	1450	78	2	2,6
Ground-squirrel	1900	78	3	3,8
Snowcock	1900	78	16	20,5

The final result was as follows: 50 photo traps were installed in the snow leopard habitats within the Dzungarian Ala Tau SNNP and the Toktin Reserve, and first video materials were obtained from the photo traps (including photos of snow leopards).

Field trip over the period of November 19 – December 6, 2015.

KACB Participants: O.Y. Lukanovskiy (junior research scientist, head of the group), T.B. Kissebayev (monitoring specialist).

Participants from the Dzungarian Ala Tau SNNP: S. Tushkenov (head of the wild life protection department), and T. Senkeyev (state inspector).

Tasks of the trip:

- 1) To remove the photo traps installed during the second expedition,

- 2) To survey the snow leopard habitats,
- 3) To install photo traps for the winter period,
- 4) To question the local population and the SNNP personnel about encounters with snow leopards and their traces.

The expedition's route: Almaty City – Town of Sarkand – Wintering Place of Sarybokter – Town of Sarkand – Almaty City.

Places of work: areas of the Dzungarian Ala Tau SNNP and the Toktin Reserve, Almaty Oblast.

The photo traps installed within the Dzungarian Ala Tau SNNP and the Toktin Reserve during the period of July 8 to 9 and 12 to 15, 2015 were removed on November 24 and 26 November, respectively, thus having operated for 137 to 139 days. During that time,



some snow leopards (three adult single individuals) were recorded as well as other animals (a lynx and a mountain goat). The state of the prey item base of the snow leopard was estimated as a good one (**TEK** was in sufficient quantity). Traces of the snow leopard were recorded in the Toktin Reserve.

Traces of the snow leopard were recorded in the Toktin Reserve.



There, two skeletons of mountain goats (large old males) were found, and according to the condition thereof, one can judge that they were victims of a big predator (most likely, of a snow leopard). Moreover, a wild boar was also visually noted (one of the secondary prey items of the snow leopard).



However, some traces of the poaching of a mountain goat and a maral were also recorded: fresh remnants of carcasses after the butchering: skins, bones, horns. One of the reasons for the uncontrolled poaching of the said wild animals is the insufficient protection of the Toktin Reserve area.



Frequency of recording snow leopards and other mammals and birds (prey items, competitors) by photo traps in the Dzungarian Ala Tau in July-November of 2015.

Species	Level above sea, m	Number of photo trap-days	Number of photo catches	Average indicator of recording encounters per 100 photo trap - days
Snowleopard	3300	137	3	2,2
Lynx	2800	137	1	0,7

Photo traps were also installed for the winter. Winter is the most promising period for studying the snow leopard with photo traps. This is explained both by the improvement of technical conditions of the device operation (absence of grass, which would have led to false alarms), and the increase in the marking activity and mobility of the snow leopard (in early spring - in FebruaryMarch).

The final result was as follows: 25 photo traps were installed in the snow leopard habitats within the Dzungarian Ala Tau SNNP and the Toktin Reserve, and new video materials were obtained from the photo traps (including photos of snow leopards).

Conclusion

The main results of the Project of the “Preservation of the snow leopard (ounce) as a national symbol of Kazakhstan” (“Ounce” Project) implemented with the assistance of Carlsberg Kazakhstan LLP in 2015:

In 2015, six snow leopards were photographed in the Dzungarian Ala Tau SNNP (a female with a cub and four single adult leopards).

A cooperation agreement was signed between KACB and the Dzungarian Ala Tau SNNP.

By surveying the habitats, questioning the locals and using photo traps, new data were obtained on the population size and propagation of the snow leopard in the Dzungarian Ala Tau.

The comparison of marked traces, encounters with snow leopards with locals, and also new cases of animal detections by the camera traps allowed us to estimate the snow leopard population level of 50-60 individuals within the Dzungarian Ala Tau in 2015. (including cubs). Previously, the snow leopard population level within the Dzungarian Ala Tau was estimated to 40-50 individuals (the Project of the “Study of the state of the snow leopard population in Kazakhstan with a view to develop measures for the snow leopard preservation,” CFW of MA of RK”, 2014).

New data were obtained on the prey items of the snow leopard (mountain goat, wild sheep, maral), predators - competitors of the snow leopard (wolf), and activities of poachers in the Toktin Reserve (in the Dzungarian Ala Tau).