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Wild Cats in Kazakhstan and Uzbekistan

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visited Kazakhstan and Uzbekistan between 25 September and 24 October 2001 as a part of projects concerning the extinct Caspian tiger (*Panthera tigris virgata*) and the wildcat (*Felis silvestris*). During my visit, I collected information about the present status and conservation of wild felids in both countries.

Sources of Information

Currently there is no researcher who is specifically working on felids either in Kazakhstan or Uzbekistan. However, there are a few zoologists who are interested in and have broad knowledge about felids in their countries. Also, some staff of national parks and conservation areas have very good knowledge of the felids in their areas. It is true that information about wild felids of Central Asia is lacking, especially for smaller species. However, the lack of the information among western scientists largely came from the lack of regular communication with researchers in the region. Having said so, currently it seems to be impractical to establish a direct communication network with the people who can access first-hand information because we usually cannot speak either Kazak, Uzbek or Russian, and most researchers and conservation staff in the region cannot speak any western languages.

In both countries, there are government organisations concerned with nature conservation and management, which regulate hunting activities, species protection and oversee various conservation areas. The conservation areas are categorised into a few different classes, and some are controlled by the central government (but not necessarily by one department) and others by provincial governments or city authorities. However, I do not know if they can provide any first-hand information of wild felids as the office workers usually do not go to the field.

I visited the Institute of Zoology, Tashkent, Uzbekistan and the Institute of Zoology, Almaty, Kazakhstan, both of which have descended from academic institutes of the Soviet era. Quite a few zoologists (30-50), most of who are field biologists or systematic morphologists, are working in the institutes and some of them are well-connected to other zoologists and national park staffs.

In Uzbekistan, Dr Alexander Esipov (Cat Specialist Group and Institute of Zoology) and his wife Lena (Institute of Zoology) are the main source of my information. The husband and wife team has been tackling snow leopard conservation in the country and contributing to publishing the up-to-date red data book of Uzbekistan. Alexander himself has been active in the field for a long time having been collecting both information and specimens of various mammalian species including felids. Both speak English.

In Kazakhstan, I was very generously and kindly helped by Prof. Vitaliy Kascheev (Institute of Zoology and Vice President of a nature conservation NGO TETHYS) and Mr Vitaliy Gromov (IUCN regional office) – the latter, a lawyer, speaks very good English as he was in the USA for a few years. With their help, I spoke with Dr Ludmila Spivakova (Institute of Zoology), Dr Vladimir Dziryakov (Almaty National Park) and Dr Ryspek Baydauletov (Institute of Zoology).

Dr Baydauletov cannot speak English, but his knowledge of the lynx in Kazakhstan was most useful. He has been working in close association with local hunters, who are the best sources of information about the status of wild felids in the country. Prof. Kovshar Anatolu, who was absent when I was in Kazakhstan, has been editing an up-to-date Red Data Book of Kazakhstan. Although his main interest is birds, he seems to have a good network covering endangered species.

Status of Wild Felids

Uzbekistan used to have 10 species of felids, including tiger (*Panthera tigris*), leopard (*P. pardus*), snow leopard (*Uncia uncia*), cheetah (*Acinonyx jubatus*), lynx (*Lynx lynx*), caracal (*Caracal caracal*), wildcat (*Felis silvestris*), sand cat (*F. margarita*), jungle cat (*F. chaus*) and Pallas's cat (*Otocolobus manul*), and Kazakhstan used to have nine of them, except the leopard. The tiger and the cheetah are extinct in both countries.

Leopard

(listed in the Red Data Book of Uzbekistan)

In Uzbekistan, the leopard may still survive in the southeast corner of the country, next to Afghanistan and Tadjikistan. In particular, they may occur around Babatag, near Termez. However, there is no information available. In Turkmenistan, until the 1940s, the leopard was common, and between 1924 and 1966 360 leopards were killed within the borders of present-day Turkmenistan.

Snow leopard

(listed in the Red Data Books of both Uzbekistan and Kazakhstan)

In Uzbekistan, the snow leopard occurs in the northeast of the country, next to Kyrgizstan, along the western end of Tian Shan Mountains, such as Talasskiy-Alatau and Chatkalskiy, and in the eastern part of the country, next to Tadjikistan, along mountains such as Turkestanskiy, Zeravshanskiy and Gissarskiy. Currently, it is estimated that there may be only 20-50 individuals left in the country. Kyrgizstan used to have a big population of the snow leopard (estimated 800-1,400, Nowell & Jackson 1996). However, because of heavy poaching, the number may have been reduced significantly. However, there may be more than 200 left. In Tadjikistan, probably, there would be about 200 snow leopards – a figure that has not been changed very much since Nowell & Jackson (1996).

In Kazakhstan, the snow leopard occurs in the Altai Mountains (the north east part of the country) and the Tian Shan Mountains (the southeast of the country), and a few isolated (or maybe contiguous) populations may exist between these two populations along the border between Kazakhstan and China. This is so because there is a no-man's zone along the national border and human activities are usually limited to the border patrol. The total population in the country is estimated at about 200, which has not changed much since Nowell & Jackson (1996). I is very rare in Kazakhstan for snow leopards to come down anywhere near human settlements, and so human-snow leopard conflict is largely non-existent. Currently, a snow leopard skin is said to be sold in the Kazakhstan black market for about US\$10,000, and the official fine is about \$100,000. However, the existence of regulations is one thing and enforcement is quite another. As it is very rare, hunters do not look for snow leopards deliberately; however, if they come across one, there is a high risk that they will shoot it.

The number of snow leopards in the Almaty National Park (60 min. drive from Almaty) seems to have been stable in the last 30 years. It is estimated there may be about 20 snow leopards within the borders of the 717km² national park, of which 150km² is covered by forests and is not suitable for the species. The population is monitored by analysing pug marks left in fresh snow. This seems to be a powerful method to distinguish an adult male, an adult female and a juvenile. However, this method cannot distinguish whether adult male pug marks found in different places belong to one adult male or more than one - the same goes for adult females and juveniles. The snow leopards in the national park may be breeding well, and surplus individuals may emigrate elsewhere along nearby mountains. Currently, there is no ecological or behavioural data to explain the dispersal - which animals are likely to disperse; which mountain they prefer to use for their dispersal; and so on.

Lynx

(listed in the Red Data Book of Uzbekistan, while *L.l. isabellinus* is listed in the Red Data Book of Kazakhstan)

In Uzbekistan, the lynx occurs in the east of the country, next to Tadjikistan along mountains such as Turkestanskiy, Zeravshanskiy and Gissarskiy. However, it became extinct in the northeast of the country, next to Kyrgizstan along the western end of Tian Shan Mountains, such as Talasskiy-Alatau and Chatkalskiy. The lynx may still be seen in the Gissaar Nature Reserve (809.86km²) near Shakhrisabz and the Zaamin Nature Reserve (217.35km²) near Jizakh.

In Kazakhstan, lynx are relatively widely distributed and most of them are still hunted legally. In legislation, Kazakhstan recognises three subspecies of the lynx within its borders: *L.l. linx, L.l. isabellinus* (*L.l. turkistanian*) and *L.l. altaica*, among which only *L.l. isabellinus* is protected. *L.l. lynx* is distributed in the north, between the Kazak-Russian border around the Ural Mountains and as far east as near Semipalatinsk, but it is not found in the west. *L.l. isabellinus* is found in the southeast and east of the country around the Tian Shan Mountains along the Kazak-Kyrgiz and Kazak-Chinese borders, partly because there is little or no human activity along the border. *L.l. altaica*'s distribution is limited to the Altai Mountains and the adjacent areas of the north east.

Traditionally it has been thought that the lynx was distributed in Kazakhstan only along the Kazak-Russian border (northnortheast), Altai Mountains (northeast) and Tian Shan Mountains (east-southeast), and not in the vast interior of the country, where steppe and semi-desert dominate the landscape. However, recent field observations have revealed that there are population inflows into the large eastern interior of the country, known as the region of "steppe mountains" or "desert mountains" from both the southeast population (*L.l. isabellinus*) and the northern population (*L.l. lynx*). Although it is not known for how long this has been happening, it is confirmed that these lynx are breeding in the "steppe mountains", which may be very different from their typical forest habitat.

Although three subspecies are recognised, field observations revealed there are hybrids among the three populations, especially in the northeast corner of the country where three subspecies borders meet. However, nobody knows to what extent interbreeding has occurred. Interestingly, all lynxes examined (about five skulls and about 10 skins annually) originated from westernmost parts of the Altai Mountains, which have been considered to be *L.l. altaica*'s range, and they showed morphological characteristics of *L.l. isabellinus*. This raises an interesting point among zoologists concerning lynx conservation in Kazakhstan: if the questionable population is classified as *L.l. isabellinus* it will be protected by law, otherwise not. As morphological work alone may not be enough to convince the authorities, molecular studies are awaited.

The Almaty National Park supports an estimated 10-12 lynx, which are mainly found in the 150km² forest area of the park. Unlike the snow leopard, the lynx are said to come down close to human houses and to kill chickens and lambs occasionally. Lynx skins are not very popular in Kazakhstan and hunters probably do not deliberately look for lynx. However, when they meet, one hunters usually shoot it. The fine is about \$2,000 for the protected *L.l. isabellinus*, and \$100 for the others, if the animal is hunted illegally.

Caracal

(listed in the Red Data Books of both Uzbekistan and Kazakhstan)

In Uzbekistan, there is no information about caracal. Probably it still occurs in northwest Uzbekistan around the Aral Sea.

In Kazakhstan, it occurs in the southwest between the Aral Sea and the Caspian Sea, and maybe along the Syr-Darya river. In the Uschutian National Park, which is located between the Aral and the Caspian seas, the caracal is said to be "not uncommon". Little information is available in both countries.

Wildcat

In Uzbekistan, the species is considered commonly distributed throughout the country. Denser populations are found near water sources, such as around Aydarkul Lake or the Fergana Valley.

In Kazakhstan, the species is also considered commonly distributed in the southern two-thirds of the country, except in the mountains. Probably the average population density throughout its distribution is 2-4 per 10km².

Although it is common, hybridisation with domestic cats may be one of the most serious problems in the future of the populations in both countries. Especially in Uzbekistan, many watersources are shared by wildcats and fishermen, many of who keep domestic cats for rodent control.

Sand cat

In Uzbekistan, the species occurs in the desert of the central and western parts of the country. The sand cat can be seen in the Kyzylkum National Park, south of Uzbekistan.

In Kazakhstan, it occurs in low density in the south western parts of the country. There is little information available in both countries.

Jungle cat

In Uzbekistan, the species is not considered endangered, although it has never been common. It occurs near water between Kara Kalpakskaya, south of the Aral Sea and along the Amu Darya River as far as Termez. There is no record of the jungle cat along the Syr Darya River in Uzbekistan.

In Kazakhstan, the species occurs only along the north shore of the Caspian Sea, west of Atyrau (Guryev). Although it has been commonly believed that the species occurs along the Syr Darya River in Kazakhstan, there has been no record since 1930. Little information is available in both countries.

Although it is not listed in the Red Data Book of either country, the species' preference for riparian habitats may be casting a shadow of pollution-related problems on the future of the jungle cat in the region. To increase cotton production, a large-scale irrigation system was created in the former Soviet Central Asia, including Uzbekistan and Kazakhstan. As a result, less and less water flowed into the Aral Sea through both the Amu Darya and Syr Darya Rivers – both rivers are probably no longer flowing into the Aral Sea all year round. This has caused drying up of the Aral Sea, which used to be the world's fourth largest lake in the 1960s. This has resulted in much higher concentration of salt in the sea and salt storms around the sea. Furthermore, huge quantities of pesticides used in the cotton fields were eventually discharged into the rivers causing serious pollution throughout jungle cat habitats.

Pallas's cat/Manul

(listed in the Red Data Book of both Uzbekistan and Kazakhstan)

In Uzbekistan, the species may have become extinct, although it still occurs in Kyrgizstan.

In Kazakhstan, it may still occur widely between the Aral Sea and the Altai Mountains. However, a higher density is found in the eastern part of the country, such as around Lake Markakol. Little information is available in both countries.

Ecological and Conservation Research on Felids in

the Region

Currently there are few projects, either in the field or in the laboratory, on any wild felids, in either Uzbekistan or Kazakhstan. Probably the only one potential exception is the snow leopard, for which a few international organisations, such the International Snow Leopard Trust, are willing to spend money.

In Kazakhstan, if money were available, the Institute of Zoology is willing to recruit graduate students to collect basic information of wild felids for understanding their ecology and conservation. Currently, the most feasible and cost-effective project would be on the lynx – ecology and behaviour of the lynx in steppe habitat, and reclassification of the lynx population in the northeast corner. Also, a full-scale survey of all felids of Kazakhstan could be carried out by such graduate student.

At the moment, it is impossible for the institute to do this because of the lack of money. For these projects, the institute needs about \$3,000 a year per graduate student (\$100 a month to cover all living expenses in the city and in the field and an extra \$1,500-1,800 per year for other necessary costs of the project). In Uzbekistan, everything is on average cheaper than in Kazakhstan. Therefore, the necessary cost for a similar project should not be more expensive than in Kazakhstan.

As Central Asia is one of the top priority regions for European Union study grants (there have to be two countries in the region for a project, and collaboration with other European institutes is required), it would be worth trying to secure a medium-sized EU grant to set up a few projects in both Uzbekistan and Kazakhstan. If necessary money is available, a three-year project would yield good up-to-date information about wild felids in the countries, and help to establish a firm network of communication.

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