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Caspian Tigers and Loptuq Activity Contexts in Eastern Turkestan

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Abstract Until a hundred years ago, Caspian tigers (*Panthera tigris tigris*) shared habitat with the Loptuq people who lived along the Tarim River, and lake Lop Nur in Eastern Turkestan. Although their paths crossed, humans and tigers avoided each other and did not compete for resources; only occasionally did a tiger kill cattle and horses or humans kill a tiger. The tigers fed mainly on wild boar (*Sus scrofa nigripes*) while the Loptuq, for religious reasons, rejected it as food. Intensified contacts with the outside world at the end of the nineteenth century changed this situation. Tiger parts, for medicinal purposes, were in high demand among itinerant peddlers, and the state authorities required furs as tribute, causing some Loptuq men to hunt tigers on a larger scale. The Caspian tiger became extinct in the Tarim Basin, most likely in the 1920s, and during the following decades, it disappeared completely throughout its former range in Central Asia. In the mid-twentieth century, ecological and hydrological changes implemented by the Chinese government destroyed the unique fishing and gathering economy of the Loptuq, and the whole group was displaced and forcibly assimilated. Fragmented information about the activity contexts between the Loptuq and Caspian tigers exist now only in older sources and scholarly publications, which are reviewed here.

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Introduction

Human relations with other animal species are a particularly interesting field of study for ethnobiologists. The topic does not only concern resource utilization but also deals with human understandings and concepts about the environment, creation of toponyms, beliefs, and rituals. In the arid regions of Central Asia, humans have always lived alongside and interacted with large predators and have found it possible to coexist even with the greatest of them: the Caspian tiger (*Panthera tigris tigris*)[1]. Until a century ago, this large cat roamed the reed thickets and riverine forests called *tugay* along the shores of the Tarim River and the lake Lop Nur in Eastern Turkestan. The main focus of this paper is the Loptuq people's relations with this animal.

Tiger movements were followed closely by the Loptuq (exonym Loplik); these fishermen and gatherers cohabited with the tigers in the same ecosystem and shared access to the waterscape. Yet they did not compete for food resources. The tiger fed mainly on wild boar, *Sus scrofa nigripes*, an animal which the Loptuq, as Muslims, rejected for religious reasons (Büchner 1894:218; Le Coq 1928a:39). Instead, they sustained themselves mainly on fish, duck eggs, and waterfowl (Hällzon et al. 2024).

Today, the only information available about Loptuq and Caspian tiger interaction in Eastern Turkestan consists of scattered data in travel narratives from the end of the nineteenth and beginning of the twentieth century. The Loptuq, the *tugay* eco-system, and the Caspian tiger have disappeared. The earliest written account by a Westerner is by Polish-Russian explorer Nikolai Przhevalsky, who visited the area in the 1870s. He noted that tigers were numerous in the Tarim Basin and around the lake (Przhevalsky 1879:168). Among foreign travelers visiting the Lop Nur area, only Przhevalsky (1879) and the Swedish explorer Sven Hedin (1898) wrote in greater detail about tigers. A

Tatar scholar from Kazan, Nikolay Katanov, also obtained some information from Loptuq in Turpan about the hunting of tigers (Menges 1933:52). Sven Hedin was a cartographer and geographer, not an anthropologist, yet among the foreign visitors he was the only one who lived with the Loptuq for an extended time period. He mastered their language and recorded a wealth of data about their knowledge of the landscape, toponyms, flora and fauna. Some of the information he gathered has been analyzed in recent years (Svanberg and Ståhlberg 2020:129).

At the end of the nineteenth century, the Tarim Basin was considered the south-easternmost distribution area of the Caspian tiger. In 1895, Hedin crossed the Taklamakan Desert from west to east. Along the banks of the Khotan River, he frequently came across the tracks of wild animals: tigers and wolves, foxes, deer, antelopes, gazelles, and hares (Hedin 1898:595). At the end of the nineteenth century, the Tarim Basin was considered the south-easternmost distribution area of the Caspian tiger. Although Hedin never encountered a tiger in the *tugay* vegetation himself, he occasionally noticed tracks near his camps and felt its presence (Hedin 1898:605, 1903:143, 1911:201). The large predator was ever-present in the riverine landscape, and this fascinated him; he even acquired a skin, which he brought home to Sweden. Upon visiting an isolated group of shepherds in the Ketek Forest near the Keriya River they also told him tiger stories (Hedin 1898:819–820). At this time, however, the tiger was already a rare sight, indicating that soon, it would become extinct (Abdukadir and Breitenmoser 2007). Hedin's writings prompt a reflection on the relationship of the Loptuq in connection with the Caspian tiger. These people lived in close proximity to the big cat: the predator influenced their lives, and vice-versa. The Tarim and Lop Nur areas at the fringe of the desert and their human and animal inhabitants were especially vulnerable, as vegetation existed only along the shores of the waterscape.

The Turkic-speaking Loptuq ('inhabitant of Lop country') lived mainly as fishermen and foragers, herders and farmers, around the Lop Nur and along the Lower Tarim and Konche Rivers in Eastern Turkestan (now Xinjiang Uighur Autonomous Region, northwestern China). Although their culture, language, and way of life differed from that of the Turki oasis peasants, the Loptuq have never been recognized as a separate ethnic group by the People's Republic of China. In the mid-twentieth century they were displaced and assimilated with the sedentary oasis dwelling Uighurs. Today, the Loptuq habitat is destroyed: the Tarim River has been rerouted for irrigation purposes and the Lop Nur area has dried up. Moreover, during several decades, China conducted nuclear bomb testing in the area, which has made the region uninhabitable for generations to come (Ståhlberg and Svanberg 2017; see also Hällzon et al. 2024).

For a historical ethnobiological analysis, the interaction of the Loptuq people with the surrounding biota must be reconstructed using only a few sources. Not much is known about the *activity context*, to use William Balee's (1994:14) term, between the tiger and the Loptuq people. The aim of this article is to explore activity contexts between tigers and humans who shared a common habitat. Ethnobiologists commonly combine social, linguistic, cultural, economic, and natural sciences to study relationships between humans, environment, and biota. Multispecies approaches aim at (re)building scenarios from human strategies to explore social and biological elements, where humans contribute to ecological landscapes together with animals (Peemot 2024). In this context, Janken Myrdal's (2012) idea of source pluralism, that is, utilizing as many source materials as possible and even scraps of information to shed light on a particular phenomenon, is especially useful for historical ethnobiology. A pluralist approach and source criticism are prerequisites when tackling difficult questions for research, and especially those for which the data provide little evidence.

Caspian Tigers and Loptuq Contexts

In the Loptuq vernacular, the tiger was known as *jolbas* or *jolbars* (Hedin 1900:83; Malov 1956:121). It was a name shared not only with Turki oasis peasants and caravan traders (Jarring 1964:158), but also with other Turkic-speakers within the range of the Caspian tiger (Hauenschild 2003:59). The local folk etymology for the zoonym was, according to Hedin (1900:83), *jol* (Turkic for 'road'), and *bars* (a Mongolian loan for 'tiger'). "The tiger always follows certain paths or cattle paths; this is why he is called *jolbars*" (Hedin 1900:83). This explanation is however not supported by linguists, who find the word difficult to explain. German linguist Willy Bang (1917:124–125) suggested that *jolbars* could have been syncopated from *jolabars,* so named because of its striped skin. This word goes

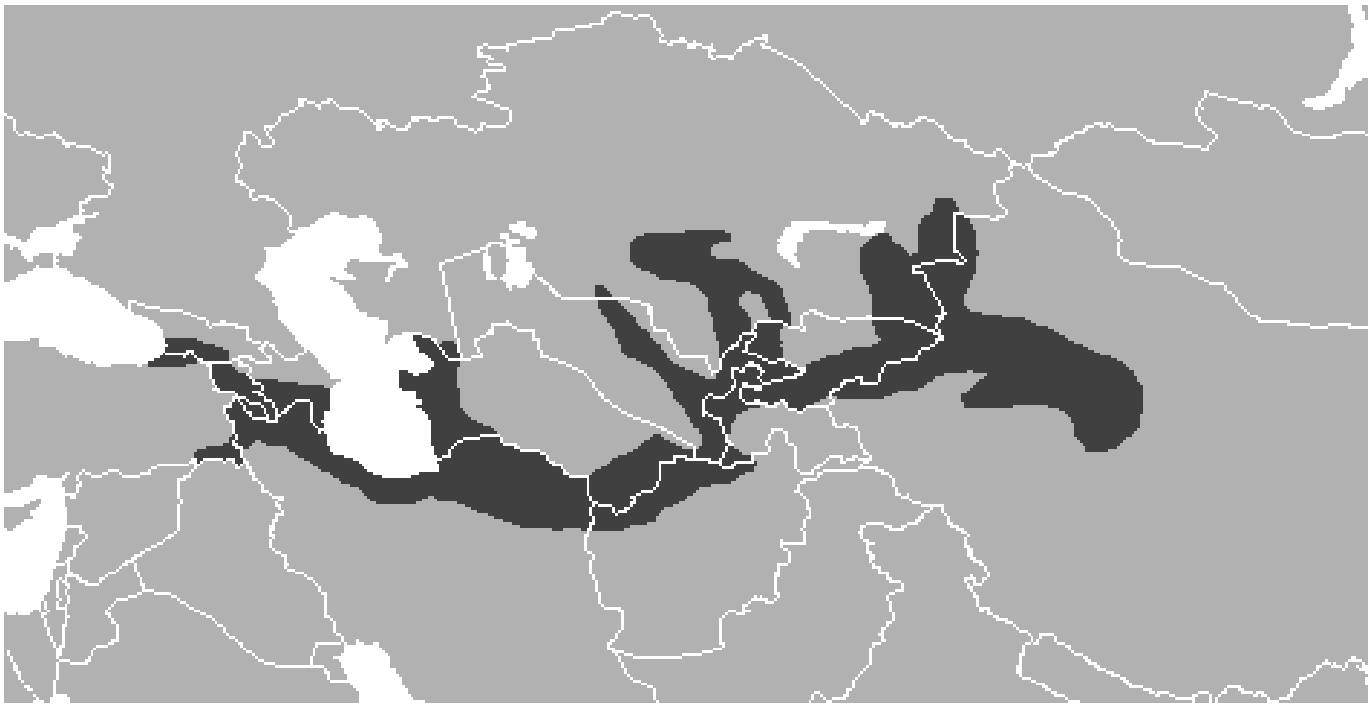

Figure 1 Historical distribution of the Caspian tiger ca. 1900 (Wikimedia). In Eastern Turkestan, the tiger was present along the Tarim River, with Lop Nur as the easternmost point of distribution in Asia.

back to Proto-Turkic **yolbars* (Räsänen 1969:206; Starostin et al. 2003:479).

The Caspian Tiger is extinct today. Earlier it was present in a large area from eastern Anatolia through southern Transcaucasia and northern Iran to Iraq, Afghanistan, and in isolated pockets throughout Central Asia into what is now northwestern China (Sanderson et al. 2025; Figure 1). The tiger roamed in river floodplains, and in tall grass and reed beds along rivers and lakes. This type of riparian forest, which is known as *tugay* in Eastern Turkestan, used to be widespread throughout the region (Thevs 2007:23). At the end of the nineteenth century, the Caspian tiger was still fairly common; it occurred especially along the Tarim River, around the southern shores of lake Lop Nur, and along a few other waterways such as the Khotan, Kashgar and Yarkand Rivers (Gordon 1876:78; Jarring 1946:180; Pevcov 1949:23; Przeval'skij 1888:256). Pavel S. Nazároff (1935:108) noted that the banks of the Yarkand River were covered with *tugay,* formerly plentiful with deer and tiger. The tiger was also common in the reed belts around the Lop Nur and Kara Koshun lakes (Hedin 1898, 1903:212; Hepner and Studskii 1992:153; Le Coq 1928a:39; Menges 1933:53; Przeval'skij 1888:256).

The rutting season for the Caspian tiger was in the fall, and two to four cubs were born during spring; if there were more cubs than that, the tigress allegedly ate them. The young stayed with the mother until they were old enough to catch their own prey (Przhevalsky 1888:477). Tiger presence was also indicated by Loptuq toponyms along the Lower Tarim area such as *Jolbars äsildi* ('where the tiger was killed'), *Jolbars baši* ('tiger's head' or 'where tigers begin to appear'), and *Jolbars kotan* ('tiger's hut'; possibly 'where the tiger rested') were found around the Lower Tarim River (Hedin 1904:18, 73, 104, 1905:513; Jarring 1997:213).

The Loptuq frequently told foreign travelers visiting the area that the tiger mainly preyed on wild boar. Yet, at times the tiger sometimes took domestic animals, like cows and sheep, when such were available and unprotected (Pevcov 1949:350). Occasionally, the tiger preyed on Tarim red deer (*Cervus hanglu yarkandensis*) (Leche 1904:45–49). It also killed small prey. Thus, when hungry and unable to find large prey, it would at times take Yarkand hare (*Lepus yarkandensis*), small geese, or ducks. Fish bones were sometimes found in tiger stomachs, indicating that the large feline also consumed fish (Büchner 1894:219; Przeval'skij 1888:476). Despite sharing habitat, water, and some of the food resources with

Figure 2 Tiger trapped in a tozaq ('iron foothold trap' [Hedin 1925:264]).

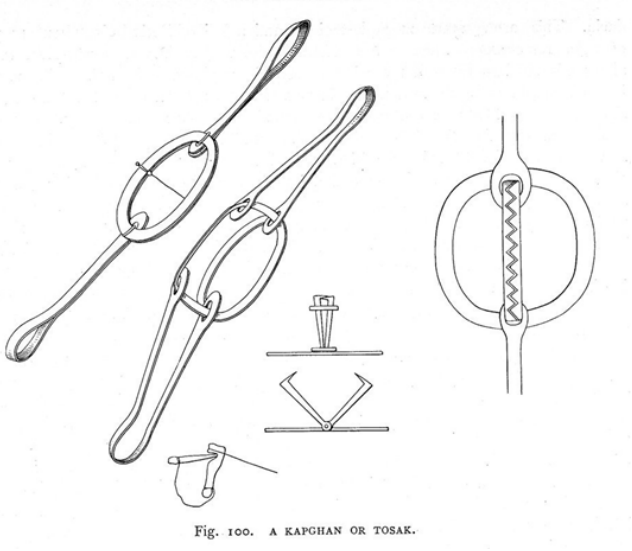

Figure 3 A trap used by hunters in the Lower Tarim area (Hedin 1904:108).

the feline, the Loptuq did not fear the tiger. Instead, they respected its strength: the Loptuq saying *kuču jolbazduk* ('he has the strength of a tiger') reflects this attitude (Malov 1956:121). They testified that the tiger never killed humans, not even when being very hungry (Büchner 1894:219; Le Coq 1928a:39; Przhevalsky 1888:477), and expressed that if the tiger encountered humans in the reeds, it "pretended not to see them", staying out of sight. At night, tigers wandered "like a spirit on the shepherd's paths" (Hedin 1903:212). The Caspian tiger was not a strictly nocturnal mammal, but to avoid being disturbed by humans, it was often less active during the day (Przhevalsky 1888:477).

During Hedin's travels on the Tarim River he saw tiger tracks on several occasions. Local people would often tell him that the feline was fairly common. In October 1899, Sven Hedin observed that shepherds along the Yarkand River would light fires between trees on the riverbanks to scare away tigers and wolves (Hedin 1903:143). It was not feared by humans, but despised by livestock herders since their cattle were potential prey. (Hedin 1904:107). This observation is shared by Swedish missionary John Törnquist, who points out that settlers in the *tugay* area were not afraid of the animal since it rarely approached humans. The tiger never dared to approach farms in daylight and at night peasants locked up their cattle (Törnquist 1928:172). One local told him that if "you should ever meet him [the tiger] on the road, just crouch down. He is then ashamed and walks away like a dog" (Törnquist 1928:172).

Tiger Hunting

Thanks to Hedin and his writings, hundreds of thousands of readers in and outside the Nordic countries became acquainted with the Loptuq, a community that otherwise often appears as stray footnotes or is completely ignored in ethnographic literature (Ståhlberg and Svanberg 2017). In the textbook *Från pol till pol* (Hedin 1911), a supplementary geography reading for generations of Swedish and Finland-Swedish elementary school students until the early 1960s, Sven Hedin (1911:207) told an exciting story: the tale of a successful tiger chase that was based on an encounter with a Loptuq hunter in November 1901. It is told with further details in the travelogue *Asia* (Hedin 1903:210–212), a scientific report (Hedin 1904:107), and again in several publications (for instance Hedin 1925:265).

One renowned "Tiger-killer," Qader, lived in the *tugay* vegetation by the Tarim River. He sold tiger pelts to Chinese peddlers. Qader explained to Hedin (Hedin 1911:207) that a tiger, once it had killed a horse or other domestic animal, would hide the prey in the dense reed belt after eating its first meal. Later, the tiger would return for more meals off the carcass. The hunter would follow the feline's tracks and set out a large pair of heavy iron foothold traps. Hedin painted a picturesque image of how the tiger silently made its way back along shepherd paths at night. There, the poor cat would get caught in the trap and tried in vain to free itself. The hunter waited for several days until the tiger was exhausted with hunger. Finally, he carefully approached on horseback and kill the emaciated cat with "a merciful shot" (Hedin 1911:207–208). The iron trap, *tozaq* or *qapqan*, was set without a lure (Hedin 1900:83, 1903:186, 1904:107–108; Figures 2–3). It was like a pair of scissors or clipper; the bows snapped together with the help of two steel springs. A man had to use all his strength to open the trap. Once, Hedin (1903:187) was told, a tiger had only stuck its toes in the trap cutting them off. After that, the poor cat had limped away. What happened afterwards was not said. Obviously, the tiger suffered an ordeal.

Przhevalsky related how bows and arrows were used for hunting tiger: on one occasion, six archers took up positions in a narrow opening between reeds (Przhevalsky 1888:479). Menges (1933:52–53) mentions the use of poison: when a cow was killed by

a tiger, hunters inserted small strychnine bags into the carcass. The tiger returned to eat and died from poisoning after a few days. In this context, it should be noted that tigers may spend several days feeding on the same large prey. Firearms were also used: the tiger whose skin Hedin purchased had been approached from around forty meters. After a first bullet hit its left eye, the hunters waited and fired five more rounds before they dared to approach it (Hedin 1903:107).

The Loptuq people hunted tigers until the end of the nineteenth century, mainly to collect furs for their own use (Svanberg and Ståhlberg 2020). At the end of the 1800s, contacts with the outside world intensified. The Loptuq paid a certain number of otter skins to the *amban* (official representative of the state) in Turpan. During the winter season, some men trapped wolves, red foxes, and otters for furs (Pevcov 1949:233–234). Hedin noticed that Qaqte village, inhabited by seven Loptuq families, paid their taxes in sheep, fish, tiger skins, and firewood. In this village, the Loptuq were not only fishers and gatherers, but also sheep herders, farmers, and semi-nomads who moved between winter and summer pastures. A hunter in the village had "in his time" killed seven tigers near their summer pastures at Dʒindar köl (Hedin 1905:115).

Henry Walter Bellew (1834–1892) observed that in the Lop area, animal products were bartered for grain, cotton, tea, and cutlery. In addition to tigers, the sources inform that stag horns, swan's down, otter skins, and other furs were provided by the Loptuq. Both Turki and Loptuq hunters hunted in the region (Bellew 1875:6–7). Around the end of the nineteenth century, Chinese peddlers became more numerous in the Lop area. They were interested in tiger parts for medicinal use and offered to pay well, which induced some Loptuq men to hunt tigers for commercial purposes (Le Coq 1928b:47; Ståhlberg and Svanberg 2017:31). Parts of the tiger are still used in traditional Chinese medicine (Linacre and Tobe 2008; Sunquist and Sunquist 2002:362). Tiger bones, pelt, teeth and other products were also used in medicines in Eastern Turkestan (Le Coq 1928b:47). Swedish scholar Gunnar Jarring (1979:5) quotes a Swedish missionary text and writes that "Delicate constitution and general weakness is cured by the pulverized teeth of a tiger, as the tiger is strong and its teeth are its most powerful weapon. The intestines of a tiger wound around the waist of a woman giving birth have a very powerful effect."

The Shadow of a Tiger

After his last visit to Eastern Turkestan, Sven Hedin (1940:149) predicted that the Caspian tiger would become completely extinct. By the 1920s, they had already vanished in the Lop Nur area (Heptner and Studskii 1992:153); this was followed by reports of extinction in other places in Eastern Turkestan (Hepner and Studskii 1992:152; Törnquist 1926:146–147). Tigers are today endangered on the global scale; their habitats shrink as human habitats grow; numbers have declined, and they are being poached in many areas. The Caspian tiger and other subspecies became extinct in Russia and Georgia (1922), Azerbaijan (1932), Turkmenistan (1954), and northern Iran and Tajikistan (1958). The last record of a Caspian tiger is from the lower reaches of the Amu Darya River in 1968 (Sunquist and Sunquist 2002:362). Later observations remain unconfirmed. In the late 1920s, the German geographer and explorer Emil Trinkler was told by Loptuq people that they had not seen tigers for some twenty or thirty years. A hunter testified that the last tiger on the banks of the Yarkand River died in 1916 (Trinkler 1930:101).

Excessive hunting is a contributing reason for the disappearance of the Caspian tiger from the Tarim and Lop Nur regions. Tigers around Loptuq settlements appear to have been scarce by the time that commercial hunting began. As their numbers rapidly dwindled, some Loptuq men traveled to other areas for hunting (Hedin 1905:78). Some scholars argue that land reclamation policies in the region contributed to the decline of tigers. In a recent thesis Yuan Gao (2024) has convincingly demonstrated how late Qing policies in the late 1800s such as land reclamation and depletion of natural resources affected the fragile eco system of the tugay forests. Combined with hunting and other factors, it eventually led to the extinction of the Caspian Tiger in Xinjiang in the early 1920s. The Qing state administration introduced agricultural colonies and encouraged migrants from the eastern regions to move west after the end of the nineteenth century, and the growing population in Eastern Turkestan increased pressure on water and land resources (Gao 2024:124–126). Migration and farming intensified again in the 1950s and modern technologies were introduced. Traditional Turki farming was generally

Figure 4 Tiger pelt, acquired by Sven Hedin in the Tarim area, Eastern Turkestan in 1901 (Ethnographical Museum, Stockholm).

small-scale and adapted to arid conditions, but the millions of new Chinese migrants introduced by the Chinese authorities had other requirements. Water was diverted from the Tarim River, which partly dried out, causing lakes and marshes to disappear. The floodplains, reed belts, *tugay* vegetation, and forests died, and desertification has made some areas uninhabitable. The tiger habitats were destroyed along with the destruction of human living regions (cf. Gao 2024:131).

Although the tiger has long been gone, rumors of sightings continue to appear. The shadow of the tiger still hangs over Central Asia; in 1959, a tiger was seen at Manas River (Hepner and Studskii 1992:153); another sighting from 1962 at Hongliugou, Arjinshan (Altun Tagh), on the northern edge of the Tibetan Plateau, is not confirmed. In 2002, a Xinjiang-based company offered a reward of one million yuan (US$125,000) to encourage residents to discover tigers (Xinhua News Agency 2002), but so far without results (Yuan 2010).

Conclusions

In Central Asia, tigers were not believed to be a threat to humans. Tigers were strong; hunting them required courage, patience, technology, and strength. The Loptuq accepted tigers near their homes and tigers cohabited near settlements, sometimes feeding on cattle or sheep, but mostly consuming wild boar. The activity contexts of humans and tigers were similar and partly overlapping, but not the same.

Foreign travelers, Chinese peddlers, and state authorities contributed to the increase in tiger hunting by the end of the nineteenth century. A considerable number of Caspian tiger skin were probably imported to Europe during the nineteenth century, but biological remains of the Caspian tiger are scarce in museum collections. A few skins from Lop Nur that were collected in 1878, 1888, and 1889 are preserved in Saint Petersburg. There is also one in Berlin from 1914 (Yamagushi et al. 2013). Furthermore, there is a complete tiger skin with a mounted head from Eastern Turkestan in the Sven Hedin Collections at

the Museum of Ethnography in Stockholm (Inv. Nr 1952.50.0275), transferred there after his death in 1952 (Figure 4). In contrast to other mammals that Hedin collected during the expedition from 1899–1902, the tiger skin never entered the Swedish Natural History Museum (Leche 1904).

There is a slight hope that tigers may hunt in Central Asia again. Recent aDNA studies show that no genetic differences exist between Amur tiger and Caspian tiger. Amur tigers are found in the wild in Siberia. Currently, they are included in various conservation programs in zoos in Eurasia and North America (Driscoll et al. 2009). A return of the tiger would require radical reforms in water use, reduction of human pressure, and serious actions to reduce the impact of climate change (Jungius 2010).

Notes

[1]The Caspian tiger was until recently regarded as a separate subspecies, *Panthera tigris virgata*. Due to molecular studies, it has now been included in the nominate form *Panthera tigris tigris* (Kitchner et al. 2017). We still use the vernacular "Caspian tiger" when referring to the Central Asian range.

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