The human factor in the disappearance of central Asian tigers

Mahmud Orziyev^{1,2,*}, Jamshid Kucharov³, and Faxriddin Egamberdiyev³

¹Bukhara State University, Bukhara, Uzbekistan

²Bukhara State Pedagogical Institute, Bukhara City, Piridastgir, 2, 200100, Uzbekistan ³Karshi State University, Karshi, Uzbekistan

Abstract: this article focuses on the history of the disappearance of predatory felines, which have lived on the territory of Central Asia since ancient times, are named after the Turanian tiger in historical sources and literature. Reviews are also analyzed about human economic activity, the expansion of the agricultural and livestock sectors, the diminishing of tiger habitats, the complete disappearance of Turan Tigers by cruel hunting, poaching and adventure enthusiasts in the middle of the 20th century. **Keywords**: Turan tigers, predatory, feline, hunting, adventure enthusiast, farm development, reedbore, harrison, Zoological garden, zological variety, ambush, herder.

1 Introduction

The second half of the 19th century - the beginning of the 20th century, "Turkistan Collection", which has source and encyclopedic significance in terms of history, socioeconomic, economic life, nature, flora and fauna, and Turan tigers in historical literature, their habitat, hunting grounds, interesting information related to (weight, height, tail, paws and claws, etc.) zoological dimensions is presented. Also, due to the result of human activities, attacks of Turan tigers on agricultural and livestock farms, hunting and massacres by humans, as a result of which the number of Turanian tigers decreased sharply and later disappeared, and we can see that another chain of zoological diversity was broken in the region.

2 Materials and Methods

In the content coverage of the topic, the materials of the "Turkestan collection" were widely used, which were important in the study of the social, economic, political and cultural progress of the Turkestan governorate general between 1867 and 1917. Methods such as comparative analysis, principles of chronological consistency, objectivity, historicism, systematic approach have also been used from a methodological point of view [1-5].

© The Authors, published by EDP Sciences. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

^{*} Corresponding author: varzonze1985@mail.ru

3 Results and Discussion

As a result of human civilization and unparalleled, unprecedented economic progress, most of the animal species, birds and plant species that exist on Earth have disappeared, and some are in a phase of total extinction. According to reports, over 300 species of mammals and birds have been lost on Earth over the next two centuries. While 100 species of birds were lost on the European continent in the last quarter of the 19th - early 20th centuries, the North American region experienced a doubling of bird species in thirty years (1980-2010). This process is still going on around the world. Ichthyology experts believe that by 2050 there is a risk that the fishery will be almost completely lost. The disappearance of biological and zoological diversity in the world causes the ecological situation to be derailed. Such situations can lead to particularly large environmental disasters in the Central Asian area. Over a long history, water reserves have been scarce, and the struggles for the development of agriculture, livestock farming, that is, as a result of human economic activity, it can be seen that many animal species have disappeared even in the regions of Central Asia.

In ancient times, the peoples of Central Asia considered and glorified large cat species, the local lions, tigers and looked at them as divine creatures. Their images have also been preserved in petroglyphs dating back to the earliest times. During the Middle Ages, local governments also sent these exotic creatures as tribute in their ambassadorial, diplomatic relations with foreign governments. As an example, the presence of a lion (in many cases, in medieval local sources, a lion and a tiger were treated as the same kind of creatures) and a large number of tigers in the Timurid era is also confirmed by data in Chinese historical literature. The treatise "Ming Shi" ("History of the Ming Dynasty"), completed for the history of the Chinese official Dynasty dating from this period, also contains several references to the fact that lions were brought by emissaries of Timurids. When ambassadors came every time, gifts, which were scarce and valued in China to obtain more Chinese unique goods for themselves, tried to make more profit by bringing a lion (tiger) in the first place. The historical annals contain accounts of Ming Dynasty officials not accepting lions brought to the emperor as tribute several times, which would cost a lot. In particular, it is mentioned that in the 19th year of the Zhenhua era (1483), an ambassador came from Samarkand, the ambassadors brought two lions with them, a person in the Court of Zhifan Lanchjun from Palace officials begged the emperor to refuse the gift due to the inability to sacrifice these creatures to the spirit of the Earth and heaven, However, a certain official named as Polwon, who was part of the envoys and brought the lion (tiger) to the court, was displeased and demanded that the envoys be awarded the same as in the time of emperor Yun Le (1403-1424).

The emissaries did not return to their lands even after receiving the gifts that satisfied them, but went by sea to the territory of Manlaszya (Malaysia). From the trip, they brought various gifts, a parrot and a lion (tiger) in 1489. However, this time their gift was rejected on the grounds that it could not be "sacrificed to the spirit of the Earth and heaven". There are many examples. Until the beginning of the 18th and 19th centuries, tigers lived somewhat safer in the coastal reeds of the Balkhash Lake, rivers of Amudarya, Syrdarya, Chu, Ili. The dramatic decline of these species began in the late 19th century and continued until the mid-20th century, culminating in their total extinction. On the territory of Central Asia, the disappearance of tigers of a native species is considered a product of human activity. The struggle for survival was the reason that cat species predators were preyed upon by humans and ended up as a species. The Tigers counted from the Central Asian predatory felines (cited in the sources as Turan Tigers and referred to by the same name in later editions) were unique, i.e. somewhat different from their conspecifics, according to the sources. Differentiation is mainly determined by physiological aspects of tigers such as

height, weight, tail length. The table below makes it possible to compare Turan tigers in comparative terms with their size, the size of their other bloodmates.

Tigers, which are considered to be Central Asian predatory cats (in the sources are referred to as Turanian tigers and will be called by this name in the following places), according to the sources, were unique, that is, somewhat different from their fellows. The difference is mainly determined by the physiological aspects of tigers, such as height, weight, and tail length. The table below shows the size of Turan tigers in comparison with the sizes of their other blood relatives.

	Weight (kg)		Length (metr)		Length of skull			
species	male	female	male	female	male	female		
Bengal	180-258	100-160	2,7-3,1	2,4-2,65	329-378	275-311		
Turan*	170-240	85-135	2,7-2,95	2,4-2,6	316-369	268-305		
	100.200	100 1 (7	2722	2 4 2 75	2.41.202	270.210		
Amur	180-306	100-167	2,7-3,3	2,4-2,75	341-383	279-318		
Javan*	100-141	75-115	2,48-???	???-???	306-349	270-292		
Southern Chinese	130-175	100-115	2,3-2,65	2,2-2,4	318-343	273-301		
Bali*	90-100	65-80	2,2-2,3	1,9-2,1	295-298	263-269		
Sumatra	100-140	75-110	2,2-2,55	2,15-2,3	295-335	263-294		
Indochina	150-195	100-130	2,55-2,85	2,3-2,55	319-365	279-302		
Those indicated with asterisk mark are the names of the species which were eliminated by the								
human								

Table 1	. Zoological	signs of	f tigers	that e	xist in	the world
1 4010 1.	. Looiogicai	. orgino U.	LUGUID	unui c	mot m	une worna

The dimensions in the table above show that the Turanian tigers are closer to the Indian and Amur tigers than their other counterparts. In the early years of the 21st century, scientists from Oxford, U.S. National University, Jewish University of Jerusalem studied the DNA of twenty-three Turan tigers remains preserved in museums and proved it to be identical to the Amur tiger. According to phylogenetic analysis, about tens of thousands of years ago, tigers penetrated through Central Asia as far as the Amur River Basin and the Far East. In later times, those who expressed scientific conclusions that, due to the influence of the human factor, the development of economic spheres and causes such as climatic changes, the two regions inhabited by tigers were separated from each other, gradually becoming two separate species from each other. It can be concluded that the climate, nature and diversity in the fodders formed the basis of these changes.

It can be seen that the Turan tigers, which lived in riverine swamps and reeds until the second half of the 19th - early 20th centuries, and they began to decline under the influence of human economic life, and sometimes factual data on the destruction of Tigers simply in hunting enthusiasts were brought in large numbers in the materials of the "Turkestan collection" ("Turkestansky sbornik"), collected during 1867-1917. As an example, we can cite a large article published "on volume 349 of the "Turkestan collection under the signature "Vernensky grazhdanin"

According to him, there was a military garrison of 1.5 thousand people here in 1847 when the Raim fortress was built on the Aral sea coast. Local herdsmen have repeatedly appealed to the military to protect them from tiger attacks and the loss of many livestock they held. However, as the attacks of the Tigers on the ranchers ' farms were told in a frantic way, the fear among the soldiers of the garrison was so strong that only one of the soldiers was cited as giving their heart to hunt them down. The Tiger Hunter was a soldier named Mantaq of the Kalmyk ethnicity, influenced by his bravery in hunting tigers in the areas of Ariqbaliq, Raim, Talbugut, Kos-Islet, Perovsky, and likened to modern Hercules. The author writes that the total number of tigers that hunted mantles was thirteen [4]. At that time, this result was achieved only by the world-famous French hunter Gerard in

hunting African lions, and he achieved this result because he had constant companions and assistants in the hunt, and Mantaq was the only one who took part in the tiger hunt and in 1858, when he was hunting the last thirteen tiger, he himself was also from the clutches of a tiger. one can witness that the information about the non-survivor was written with passion in the collection. From this information, it is not difficult to understand that those who managed to hunt tigers were considered to have shown great heroism.

One of the reasons for hunting tigers was their attacks on the livestock of local people, especially during winter. In order to protect their livestock from destruction, the residents had to ask for help from the military. Also, in some cases, we can see that the population itself organized to hunt them. According to one of the cited reports, in January 1872, a family of tigers appeared in Bas-Kora, a place in the lower reaches of the Syr Darya River, and began to harm the livestock of the local population. Their family consisted of two big and three young tigers. The population asked for help from the military garrison to protect the livestock, after searching and returning without finding them, the leader of the local clan, It is stated that Musogboy Mengliev gathered ten people from his clan to search for tigers, their weapons consisted of three swords and axes, and during the search, they found the tracks of two tigers within two kilometers from the farm. One of the tigers had attacked to Musakboy, and his brother Khojaboy came to help him in defending himself from the tiger's attack. Musakboy hit the tiger's head with an ax. It was sent as a gift to the military garrison after the skin of the dead tiger was removed. Firearms and practical assistance were requested instead. The head of the garrison gave Musakboy his double gun and sent Nikolai Horoshkhin, a soldier with great experience in tiger hunting, to help. The local herdsmen used various methods of enlisting the military to protect their farms, leading to the massacre of the tigers.

Khoroskhin knew that tigers ambush hunters and attack them unexpectedly from the rear or from the sides, and taking these aspects into account, he himself set a trap for the tiger. He let the group of hunters go ahead, one to walk a few paces behind, and he began to stalk even further behind. When the tiger missed the group of hunters and tried to suddenly attack the hunter who was behind, Khoroshkhin, who was coming far behind him, shot and killed the tiger. For another five or six days, the hunting party searched in vain for other members of the tiger family. On January 29 of the same year, another tiger was tracked down. Musakboy, Khoroskhin and Gaujul Blyanov entered the reeds where the tiger was hiding, and five more hunters, armed with three swords, were waiting on their horses in front of the reeds. When Khoroskhin's arrow, which was aimed at a tiger, went wrong, all three hunters were wounded in the fight. If, when the cavalry did not come to the aid with a shout, maybe the take-off could end in disaster, but, when the angry tiger did not move away from them, the non-military hunters who remained in reserve could not shoot the rifle, then three hunters with wounded hands would return to avul, frightened from entering the fight, and the next day the garrison captain. Three miles from the avul, a tiger was encountered in a reed bed. Surrounding the cane field, three hunters Samyon Kapnyaev, Lukyan Dashnyov, Shanakhmed Shangirov entered the cane field. However, they were also saddened by chopmay Kapyanov, who was wounded and brought out of the cane field by two companions. This bad luck was also demoralized by others, a group of forty hunters arrived the next day, and after several people were injured, ordinary Soldat Grigory Grigorev was successful in killing the tiger. The attack of the tigers on the cattle was stopped by their extermination.



Fig.1. After the tiger hunt. Photo taken by I.F.Berel and L.A. Seriakov.

It can be said that the main reasons why tigers attack humans and their livestock were because of the ever-shrinking range of their living areas and the dwindling range of their main prey, the wild boars. This situation especially accelerated in the late 19th - early 20th centuries and ended with the completion of the elimination of tigers. In the 4th issue of the press organ of "*Chteniya dlya soldata*" published in 1883, it was reported that a tiger appeared around the military camp near Chinaz, when it attacked them, the Siberian Cossacks named Eroshka and Mamlev shot and killed it, and for its fur they received a reward of 50 rubles from the governor, at that time 50 The ruble was considered to be easy money. Because of this, three people who were eager to get a reward, and the next day eight people went hunting, although one tiger was hunted from the reeds on the Chirchik River, one Cossack was lost, and one was seriously wounded and died three hours after being brought to the barracks. You can read thoughts about the worthlessness of human life from the 411th volume of "Turkestan Collection". The dense settlement of people on the banks of the Chirchik River caused the tigers to be exterminated here relatively earlier.

The shrinking habitats of tigers have caused them to look for food in residential areas. In the data of 1879, there is information that tigers lived 30-40 vorsts (measure of distance) away from Tashkent four to five years ago, and now they live 10-15 vorsts closer. In 1877, tigers lived in Oktepa and Chugushtepa, 18 vorsts from Tashkent, until late autumn. This year, tigers living near the Kyrgyz settlement near Karatepa caused great damage to livestock of the population. In October 1878, a male and a female tiger moved to the right bank of the Chirchik River with their cubs and lived for a while in Nogaikurgan (six km from Tashkent). In one of the parks in the densely populated village of Zangiota, a mother tiger lived for a while and killed a cow and attacked a cub. The boy escaped by climbing a tree. In January 1879, when the land was covered with 0.5 vershok of snow, the village boy went out to hunt tigers with some of his companions. In the hunt, a tiger seriously injured a tiger and two others were slightly injured. Biy died a day later. This fact proves that tigers were also hunted for fun and this hunting was not always fun.

The press of the time also published a large number of articles encouraging people to massacre the Turanian Tigers by depicting Tigers and their hunting, hunting, hunting landscapes as exciting. In one of the articles in the "Turkestan collection", it is mentioned that "the geography of the regions inhabited by Turan Tigers, the road between Juldama and Chinaz to hunt tigers, and the burning of reeds on both sides of it and the killing of a tiger who tried to escape this fire, while the habitat of narrowing predators, the predators jumping over a wall of four arshins in the karavansaray on the Chirichik river passing, which took away the meat which was being transported to be sold" - it was clear that the related realities would not leave adventure enthusiasts without increasing their interest in tiger hunting.

There have also been cases of adventurous demand hunters occasionally running away in fear of a tiger, related information on the 225th volume of the "Turkestan collection", " two Cossacks offered their help in hunting to Shumov, who made a name as a Tiger hunter it is reported that "two Cossacks offered their help in hunting to Shumov, but, when the hunter's arrow went wrong and the tiger was thrown at the hunter, his partners ran away, Shumov found his cowardly companions after a few calls, and from the next gal, after they vowed not to leave for whatever reason, so that he would go on a tiger hunt with other helpers confirms the feedback we have cited above.

On the other hand, hunting tigers and assigning rewards to those who hunted them, some authors began to insist on their performances through the press. One such author wrote that the brothers Semyon and Sergei Paymurzin, who lived in the lower reaches of the Amudarya, came to the wild boar hunt in November 1908 and, having encountered a tiger on the hunt, killed him and scalped its skin, and sold to a local fisherman Selekhov for twenty-three rubles. In March of the same year, the khivans also killed a tiger, a tiger appeared near Qand-Uzak (one of Amudarya's tributaries to the Aral Sea island) and gave their "suggestions" about organizing a tiger hunt and giving rewards to those who killed Tigers, citing other examples. Such calls were the same provision for hunting and adventure enthusiasts, even if they were not supported by the state.

In one of his information: it is possible to be able to read the following: "for those in the Tashkent Garrison, the reedbeds on the Chirchikes are an excellent hunting ground for their entertaining writing, where birds, especially pheasant serfdom, where the author even once faced a tiger in a hunt", trying to convey information about it to hunting enthusiasts. In addition, in the 17th issue of the press outlet "Vokrug Sveta " of 1886, information on the richness of Aral Sea reed fields in the possibility of hunting animals, birds, animals, such as wolves, jackals, Tigers was transmitted to readers who were hunting enthusiasts [1]. Examples of this can be found in many articles of pile roofs.

Such factors as frantic reports of tigers, their large size, the use of their teeth and claws as amulets encouraged hunting enthusiasts to hunt these creatures. In addition, there is a info on an officer of the Orenburg Cossack Regiment Kuznetsov Nukus in 1895, who has gone to a tiger hunt, and in 1896 the soldiers of the Karki Garrison also hunting tigers. They had photocamera and also photographed the tiger they hunted. The spread of the photos, on the other hand, served to increase the number of road hunting enthusiasts. The shrinkage of tiger habitat, brutal hunting, threatened to diminish and even disappear of tigers in the early 20^{th} century.

There are also people who are passionate about domestication of Turan tigers to the hand, keeping them as exotic creatures through their free roam in their own house or yard, and in the house of the merchant Khludov, the tiger he raised from an early age walked freely. Also K.P. von Kaufman's had two tigers roaming freely in his yard. Later, tigers belonging to Khludov and Kaufman were slandered to the Moscow Zoological Park. This may be thought to have been an early attempt to preserve the Turan tigers. Belonging to Khludov, who died prematurely at the age of 28, the tiger ate only from his hands. There are also opinions that their brothers donated this tiger to a zoological garden because they could not feed it [3, 392c]. The further fate of these tigers is unknown to us.

The process of hunting tigers continued uninterrupted into the early 20th century. The increase in interest in this hunt was also caused by various frantic reports heard about tigers. For example, in one of the articles of the time can be quoted the following: "...now there is a terrible wilderness, mainly in the delta (Amudarya) part. On the way back, I heard local residents talking calmly about how Tigers were eating people [5]". In early 20th-century articles and reports, a number of data relating to the decline of tiger conservation is not considered. In one of the 1915 data, it is recorded that the tigers lived in the Chu and Syrdarya basins, in the lower reaches of the Amudarya, while the tigers lived much more

imperceptibly, even on the banks of the Chirchik River, about twenty years ago. Over the next five years, the Syrdarya region had nine Tigers hunted in the area, five of them in the lower parts of the Perovsky Garrison, two between Perovsky and Julek settlement, another two were hunted in the Chu valley, while it was mentioned that one tiger skin was valued at 100 rubles and even more expensive in Tashkent at that time. This served as a good excuse for hunting tigers. The following map shows the areas where Turan tigers lived in the late 19th – early 20th centuries.

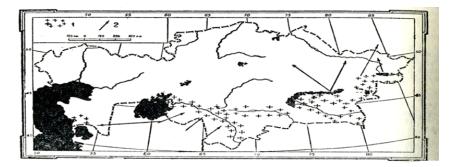


Fig.2. Territories where Turanian tigers spread at the end of the 19th century and the beginning of the 20th century.

From the point of view of the harm to economic activity, a mass hunt has sometimes been announced for Turon Tigers. For example, the founder of the Turkestan hunting society Y.T. Smirnov had organized a giant hunt in 1883 for the purpose of hunting tigers. It observed the participation of local hunters and regular troops in Tashkent. On February 27, 1883, according to the "Local population survey", the Chief of staff of the Turkestan military district conducted an operation to clear Tashkent and Chinaz from predators with the involvement of the 12th Turkestan battalion of regular troops. According to reports, Prince Golitsin killed the last tiger around Tashkent in 1906. Its fur was kept in the Tashkent Museum of Natural Science until the 60s of the last century. The last recorded sighting of a tiger in the amudarya Delta was in 1957. 13 years after the same event, it is recognized that this species of Tiger has completely disappeared. The last time the tiger was hunted in the lower part of Syrdarya was in 1933 in a place called Kasto, Kazalinsky district, Kyzil Orda region. In 1937 a tiger footprint was seen at Solotepa station, the left bank of the lower Syrdarya. Thereafter, no trace of tigers was found in the area until 1945. In November 1945, wild boars from the lower Amudaryo began to migrate en masse to the lower Syrdaryo. Because of this, traces of Tigers begin to occur again. They make their way through the Left Bank of the Syrdarya to Jusaliyski station. It then occurs around the Koksu lakes Kyzil Orda region) on the right bank of the Syrdarya. Tigers also appeared in Ospan kupir, 22 km from the Kyzil Orda city. [2.

According to G. Nikolsky (1930), the last pair of tigers in the Chu river basin were killed in 1912. However, hunters say that tigers were encountered before the fires in this region in 1916-1917. There are reports of tiger sightings in Lake Ulabel in the Chu basin in 1936 and 1937. In the Ili basin, we see the situation of mass extermination of tigers since 1891. There are records of soldiers rota participating in the tiger hunt that year. A tiger killed in the winter of 1892 was responsible for the death of one soldier and the severe injury of two. Starting in 1895, around the Iliysk settlement, Tigers begin to meet 2-3 individuals. In 1896, soldiers killed one Tiger and the other went into hiding. In October of this year, the Cossacks killed a huge tiger in a place called Karasuv, 12 km from Iliysk settlement. In 1897, there was a huge fire in Iliysk, where local residents found burnt

Tigers. After that, the tiger was not encountered until 1908. In 1926-1935, six tigers were killed in Lower reaches of Ili River. According to hunters, about ten tigers lived in the reeds of the Ili River in 1935. Since 1948, none of the hunters had recorded sightings of the tigers. 1948 made history as the year of the disappearance of tigers from the Ili Basin [2].

4 Conclusion

As a conclusion, it can be said that the Turan tigers were completely extinct by the middle of the 20th century. The main reason for their extinction is the expansion of human economic activity. The development of agricultural areas, where tigers caused the shrinkage of living spaces, caused hunting and adventure enthusiasts, and sometimes military units, to be subjected to Tiger slaughter, to take them from the list of lost creatures of the fauna of Central Asia. This has led to the degradation of diversity of the nature.

References

- 1. Muzaffarov A. Duno is worried// XXI century; (May 15, 2013)
- Orziev M.Z., Khaitov J.Sh. *Turanian tigers-in historical sources.*//Materials of the scientific-theoretical conference held by the Bukhara State Medical Institute
 "Education, science, and production in the education of a perfect generation and training of highly qualified specialists: problems and solutions". (Bukhara 2015)
- 3. Hamroyev A., Jumayeva H. //E3S Web of Conferences 2023. 420. 10007.
- 4. Kuldoshev R. et al. //E3S Web of Conferences, 2023. 371. 05069.
- 5. Qo'ldoshev A. R. //Psychology and Education Journal. 2021. 58. –1. 4981-4988.