

VKM assessment: Non-detriment finding for Heptner's markhor

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Scientific name: *Capra falconeri heptneri* (Zalkin, 1945). *Capra falconeri heptneri* is one of three recognized subspecies of *C. falconeri*.

Common name: Heptner's markhor, Bukhara markhor, Tajik markhor

Norwegian name: Skruegeit

Type of permit: CITES Appendix I (Norwegian CITES Regulation Annex I, List A).

Country of Import: Norway

Country of Export: Republic of Tajikistan

Purpose and source: The proposal concerns the import to Norway from the Republic of Tajikistan of one trophy (skin, skull, horns) (purpose-of-transaction code H) of wild sourced *Capra falconeri heptneri* (source code W).

To permit trade of species included in CITES Appendix I, the criteria of Article III of the Convention must be met. In the Norwegian CITES regulation (Lovdata 2018) the criteria for import to Norway is described in Chapter 2, Section 4.

VKM has adopted the definition of detriment, cf. Conf. 16.7 (Rev. CoP17) suggested by the U.S Fish and Wildlife Service Division of Scientific Authority (<https://www.fws.gov/international/pdf/archive/workshop-american-ginseng-cites-non-detriment-findings.pdf>):

1. Harvest that is not sustainable.
2. Harvest that harms the status of the species in the wild.
3. Removal from the wild that results in habitat loss or destruction, or that interferes with recovery efforts for a species.

Conclusion

The Heptner's markhor population in the Republic of Tajikistan has been surveyed repeatedly between 2014 and 2021 and has been documented to be increasing. In Tajikistan, trophy hunting of Heptner's markhor is permitted within hunting management areas and is subjected to an annual quota. The hunt is run by local conservancies with the goal of being beneficial to both conservation of the markhor and development of the local community in the area. The IUCN Species Survival Commission Caprinae Specialist Group (IUCN SSC/CSG) advises the Committee for Environmental Protection of the Government of the Republic of Tajikistan on management and conservation strategies for the growing markhor population. The exporter of the trophy is the LLC Oxus Holding conservancy in the Shamsiddin Shohin district of the Kahtlon region that was surveyed in 2021.

VKM concludes that the import of one trophy of *Capra falconeri heptneri* to Norway from the LLC Oxus Holding conservancy in Tajikistan **will not be detrimental** to the survival of this species in the wild.

1. Biological information

Distribution

Capra f. heptneri inhabits Afghanistan, India (Jammu-Kashmir), Pakistan, Tajikistan, Turkmenistan and Uzbekistan (Broghammer et al., 2017). Southern Tajikistan is the most important range state of the subspecies *C. f. heptneri* where its range is only about 1177 km² (Broghammer et al., 2017; CITES, 2019).

Life history

Capra f. heptneri is adapted to mountain terrain and steep cliffs at 600 to more than 4,500 meters elevation (Broghammer et al., 2017). The species is typically found in areas with open woodlands, scrublands, and light forest (CITES, 2019). Markhors are diurnal and their most active period of the day are early mornings and late afternoons (CITES, 2019). Animals reach sexual maturation at 18-30 months. Females typically give birth to 1-2 kids after a gestation period of 135 to 170 days. The life expectancy is 12-13 years (CITES, 2019). Michel and Rosen Michel (2015) characterize the markhor as an altitudinal migrant species, but dispersal may be restricted by the amount of available habitat.

Role in the ecosystem

Food preferences change with availability and season, with grazing in summer and browsing in winter (CITES, 2019). Markhor may be subject to predation by snow leopard (*Panthera uncia*), leopard (*Panthera pardus*), lynx (*Lynx lynx*), brown bear (*Ursus arctos*) wolf (*Canis lupus*), golden jackal (*Canis aureus*) and golden eagle (*Aquila chrysaetos*) (CITES, 2019).

2. Population trend

Increasing (Michel and Rosen Michel, 2015). The population size was estimated to 5,754 mature individuals for the IUCN Red List assessment (Michel and Rosen Michel, 2015). In a survey of the population in Tajikistan conducted by IUCN Species Survival Commission Caprinae Specialist Group (SSC/CSG) in 2017, altogether 1,901 individuals were observed (Broghammer et al., 2017). A larger area was surveyed in 2021 and a total of 5,086 animals were counted (Committee for Environmental Protection under the Government of the Republic of Tajikistan, 2021). Herrero et al. (2022) reported a total of 6,588 individuals, an increase of 40% since 2017. Altogether surveys conducted in 2014, 2016, 2017 and 2021 indicate that the numbers of Heptner's markhor are increasing (Broghammer et al., 2017, Herrero et al., 2022).

3. Conservation status

Capra f. heptneri, including all subspecies, is listed as Near Threatened (NT) in the IUCN Red List of Threatened Species (Michel and Rosen Michel, 2015).

4. Threats

In Tajikistan, markhors are poached for meat (Michel and Rosen Michel, 2015). There are also reports of significant levels of poaching by Afghan poachers in Tajikistan (Michel and Rosen Michel, 2015). Habitat quality has deteriorated in some locations due to excessive and poorly regulated fuel wood cutting and intensive grazing (Michel and Rosen Michel, 2015). Markhors share habitat with domestic livestock, thus increasing the risk of disease transmission. In 2010, 64 markhors were reported to have died from a Mycoplasma-pneumonia outbreak, most likely caused by infection transmitted from domestic goats (Ostrowski et al., 2011 in CITES, 2019). Preventative measures have since then been implemented, and no further mass mortality event has been recorded, however, minimizing the risk of disease transmission remains a significant challenge for managers (CITES, 2019).

5. Conservation and Management measures:

International legislation

All subspecies have been listed on CITES Appendix I since 1992. All subspecies have been listed on Annex A of the EU Wildlife Trade Regulations since 1997.

National legislation

Heptner's markhor is listed in the Red Book of Tajikistan and is thus legally protected (Committee for Environmental Protection under the Government of the Republic of Tajikistan, 2021). In 2009 the species was listed on Afghanistan's Protected Species List, making any hunting or trade within the country illegal (Michel and Rosen Michel, 2015).

Conservation measures

In 2004, several traditional local hunters were concerned that the markhor would go extinct (with 350 individuals left in Tajikistan). They established small enterprises dedicated to markhor conservation with sustainable use. Based on the revenues from trophy hunting there are currently several community-based conservancies (mainly family driven but also community-based NGO). These conservancies have managed the recovery of the markhor, with local people employed as guards and various community development projects funded (IUCN, 2016).

The IUCN Species Survival Commission Caprinae Specialist Group (IUCN SSC/CSG) conducted population surveys of Heptner's markhor in Tajikistan in 2017 (Broghammer et al., 2017) and assisted the Committee for Environmental Protection of the Government of the Republic of Tajikistan in 2021, to improve monitoring protocols and develop a preliminary conservation strategy (Akramov et al., 2022). In Tajikistan, trophy hunting of Heptner's markhor is permitted within hunting management areas and is subjected to an annual quota. The hunt is run by ten local conservancies with the goal of being beneficial to both conservation of the markhor and development of the local community in the area.

6. Trade/use

Legal

Between 2014 (first record) and 2021 a total of 40 imports and 32 exports of trophies of *C. falconeri* (all wild caught) from Tajikistan have been registered in the CITES Trade Database. The EU Scientific Review Group (SRG) had a positive opinion on the import of markhor trophies from well-managed conservancies in Tajikistan in 2014 (EU SRG, 2014). In 2018, EU SRG (2018) recommended import from three conservancies only as described in Broghammer et al. (2017). EU will allow import of 20 individuals hunted in Tajikistan over the period September 2023 – March 2024 (EU SRG, 2023). IUCN SSC/CSG will continue to advise the Government of Tajikistan on conservation and management of *C. falconeri* (IUCN SSC Caprinae Specialist Group, 2021).

Illegal

EU confiscation of 11 hunting trophies of Tajik origin in 2017 (EU SRG, 2017) shows that illegal hunting occurs.

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