
VKM assessment:

Non-detriment finding for Heptner's markhor

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Note: the authors have consulted the IUCN Caprinae Specialist group for this assessment.

Species:

Scientific name: *Capra falconeri heptneri* (Zalkin, 1945)

Common name: Heptner's or Bukhara or Tajik markhor

Norwegian name: Skruegeit

Capra falconeri heptneri is one of three recognized subspecies of *Capra falconeri*.

Type of permit: CITES Appendix I

Country of Export: Tajikistan

Purpose and source: The proposal concerns the import of 1 trophy of *C. f. heptneri* to Norway for taxidermy. The stuffed trophy will be (subject to re-export permission) be exported to Iran.

Conclusion

VKM adopted the **definition of detriment** 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 is not sustainable
2. Harm to the status of the species in the wild
3. Removal from the wild that results in habitat loss or destruction, or interference with recovery efforts for a species.

The IUCN Species Survival Commission Caprinae Specialist Group (IUCN SSC/CSG) conducted a population survey of Heptner's markhor in Tajikistan in 2017. The results of the survey were used to provide advice on trophy hunting of this sub-species in Tajikistan. 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 and is in many cases highly beneficial to both conservation of the markhor and development of the local community in the area. However, some conservancies provide few or no benefits for the local community and trophy hunting is poorly managed, which may negatively impact conservation of the markhor.

The exporter of the current trophy is the LLC-Bars conservancy. The IUCN SSC/CSG report concludes that "from a biological and socio-economic-cultural point of view, we cannot recommend or support any trophy licence for LLC-Bars. Significant changes in the administration of the areas currently assigned to LLC-Bars should be introduced by decision makers to endure a long term community-based conservation hunting success of Heptner's markhor in Tajikistan".

Personal communication with the IUCN Caprinae Specialist Group Red List Authority (email correspondence) confirms that this advice is still valid, thus trophy hunting run by the LLC-Bars conservancy is not recommended.

Based on the information described above, VKM is unable to determine that the import of a trophy of *Capra falconeri heptneri* from the LLC-bars conservancy in Tajikistan is non-detrimental to the survival of this species in the wild.

1. Biological information

Distribution

C. heptneri inhabits Afghanistan, India (Jammu-Kashmir), Pakistan, Tajikistan, Turkmenistan and Uzbekistan (IUCN SSC/CSG, 2017). While Tajikistan is the most important range state of the subspecies *C.f.heptneri*, the sub-species range is only about 1177 km² (IUCN SSC/CSG 2017) of the 143 100 km² area that is Tajikistan (<https://no.wikipedia.org/wiki/Tadsjikistan>). The sub-species is distributed in the Darvaz and Shamsiddin Shohin districts of southern Tajikistan. The markhor range includes the Dashtijum Strict Reserve, Dashjitum Reserve and six conservancies (IUCN SSC/CSG 2017)

Life history

C. f. heptneri is adapted to mountain terrain and steep cliffs at 600 to 3,600 m elevation. The species is typically found in areas with open woodlands, scrublands and light forest (CITES, 2019). Markhors are diurnal, however, their most active period of the day are early mornings and late afternoons (CITES, 2019). Food preferences changes with availability and season, with grazing in summer and browsing in winter (CITES, 2019). Animals reach sexual maturation at 18-30 months, gestation period is between 135 and 170 days, and females typically give birth to 1-2 kids. Markhor may live up to 12-13 years (CITES, 2019). Michel and Rosen (2015) characterize markhor as an altitudinal migrant species, however, dispersal may be restricted by the amount of available habitat.

Role in the ecosystem

Food preferences changes 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. The population size was estimated to 5,754 mature individuals (Michel and Rosen, 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, of which 844 were identified as mature animals and 81 as males over 8 years old (IUCN SSC/CSG 2017). Surveys conducted in 2014, 2016 and 2017 indicate that the numbers of Heptner's markhor are increasing (IUCN SSC/CSG 2017). However, IUCN SSC/CSG does

not exclude the possibility that repeated counts may have been registered and may cause an overestimation of markhor count.

3. Conservation status

C. heptneri, including all subspecies, is listed as Near Threatened ver. 3.1 in the IUCN Red List of Threatened Species (Michel and Rosen, 2015). The species nearly qualifies as Vulnerable under criterion C2a(i) because there are less than 10,000 individuals and, with the exception of one subpopulation, each subpopulation has less than 1,000 mature individuals (Michel and Rosen, 2015).

4. Threats

In Tajikistan, markhor are poached for meat (Michel and Rosen, 2015). There are also reports of significant levels of poaching by Afghan poachers in Tajikistan (Michel, 2010; Michel and Rosen, 2015). The border area between Tajikistan and Afghanistan is remote and difficult to control, cross-border poaching is common, and thus negatively affects conservation of markhor in the Dashitum Strict Nature Reserve located next to the border (Michel and Rosen, 2015). Habitat quality has deteriorated in some locations due to excessive and poorly regulated fuel wood cutting and intensive grazing (Michel and Rosen, 2015). Markhors share habitat with domestic livestock, thus increasing the risk of disease transmission. In 2010, 64 markhor were reported to have died from a *Mycoplasma*-pneumonia outbreak, most likely caused by infection 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, to minimize 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 (CITES, 2019).

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).

However, while trophy hunting in half of the conservancies is contributing to conservation and local community development, there are challenges related to trophy hunting in the remaining areas (IUCN SSC/CSG 2017). Hunting quotas are specific for a given season and any decision on hunting quotas for future seasons are made based on population data (CITES, 2019).

Tajikistan manages markhor hunting through a quota system where the allocation of quotas is done by the Scientific Authority, namely the Academy of Sciences of Tajikistan. The quota is specific for a given season. The quotas for tourism sport hunting on *Capra f. heptneri* were allocated as follows: 2014-2015=6 old males, 2015-2016=7 old males, 2016-2017=7 old males, 2017-2018=12 old males. (CITES, 2019). Trophy hunting is managed by local conservancies (community-based trophy hunting)

6. Trade/use

Legal

Some legal trophy hunting occurs and some illegal hunting is known to take place (CITES, 2019).

IUCN SSC/CSG (2017) recommends trophy quota for Tajikistan on altogether 9 males over 8 years of age. The quota is divided on 3 of 6 surveyed areas. For the remaining three conservancies no hunting was recommended.

Between 2014 and 2017 there are seven records of imports (a total of 15 individuals) of *C. falconeri* from Tajikistan in the CITES Trade Database. All records are of wild caught trophies (CITES Trade Database). A total of 6 trophies were reported exported in 2017.

It should be noted that 4 exports of *C. falconeri* trophies from Tajikistan to the US, recorded in the CITES trade database for 2017 are not included in paragraph 6.2 on legal trade in the CITES listing proposal. (cf. CITES, 2019 page 7). 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). However, several concerns were raised about events/observations in 2016 and 2017 (EU SRG 2017). EU SRG recommends following the guidelines and quota proposed in IUCN SSC/CSG (2017).

The findings of the IUCN SSC/CSG (2017):

There is substantial variation in how the conservancies are run and their actual level of support to markhor conservation and the local community. For 50% of the conservancies (LLC Safari Dashjitung, NGO Muhofiz and LLC Bars), the IUCN SSG/CSG report that there is no information about community support and benefit sharing. Furthermore, they report that people living in the surrounding villages of these conservancies do not get any incentive to protect the markhor because they do not benefit from its conservation. This lack of support, combined with insufficient protection by rangers, results in poaching. In addition, there has been reports of non-sustainable hunting in the areas managed by LLC Safari Dashjitung, NGO Muhofiz and LLC Bars (IUCN SSG/CSG, 2017).

For the areas managed by the conservancies LLC Morkhur, LLC Saidi Tagnob and LLC M-Sayod, small quotas are supported by the IUCN SSG/CSG.

Illegal

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

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