Persian Leopard Newsletter

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TWO PERSIAN LEOPARDS FITTED WITH SATELLITE COLLARS

s part of a PhD program based in University of Oxford's Wildlife Conservation Research Unit (WildCRU), two adult Persian leopards were fitted with satellite collars in Tandoureh National Park, Northeastern Iran. Both males were captured using baited snare traps at two stations in early October 2014. The younger leopard, estimated to be 4 to 6 years old, was subsequently named "Borna" meaning *prime* in Farsi. The second individual, who is a popular leopard among Tandoureh's visitors, is named "Bardia" who is a Persian hero.



Photo: A. Moharrami/ WildCRU/ ICS/ Panthera

Borna, the younger leopard, stayed around the capture site for a few days. He then started his journey, ranging sometimes even beyond the reserve boundary. In contrast, Bardia quickly left the capture site and patrolled his territory in the national park's core zone.

The principal investigator Mohammad Farhadinia led the trip with team members Arash Moharrami (project assistant), and DVM Iman Memarian and his assistant Alireza Shahrdari who successfully sedated the leopards. Houman Jowkar (CACP) also assisted in the safe deployment of snare traps, previously used for another project in central Iran ran by WCS. Nima Asgari and Fatollah Amiri who produced the award-winning documentary "In Search for Persian Leopard" are also filming the project.

The project team is grateful to Panthera that provided satellite collars through a Kaplan Graduate Award to Mohammad Farhadinia. Also, special thanks go to the Iran Department of the Environment for issuing necessary permits for the team to work and stay in the national park.



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MORPHOMETRIC PATTERNS OF SEXUAL DIMORPHISM IN PERSIAN LEOPARD

Recent paper written by one of the Iranian Cheetah Society's (ICS) experts expands scientific knowledge about inter-sexual dimorphism i.e., significant size differences between males and females among Persian leopards. Published in the August 2014 issue of **Zoology in the Middle East** , the paper reveals various levels of sexual dimorphism among the Iranian leopards, from skull variables to body measurements. Co-authored by a joint research group of the University of Tehran and ICS, the paper is based on 63 craniometrical and 55 morphometric samples from different parts of Iran. Accordingly, significant inter-sexual differences were noted in skull size. Furthermore, inter-sexual differentiation was remarkable when comparing morphometric body measurements in adults, showing that the males possess a larger head mass and longer body, but sub-adults did not show any remarkable differentiation between sexes. Adult male Persian leopards have a body weight of 40 to 91 kg, which is reduced to between 26 and 60 kg in females.

leopards mainly along the borders with Iran.

WATER SECURED FOR THE LEOPARD AND ITS PREY IN SALOUK NATIONAL PARK

ran faces an emerging challenge, severe drought, particularly during hot summers when many springs become dry. As a result, many wildlife species, particularly leopards and their ungulate prey such as urial wild sheep face a difficult time finding water. In Salouk National Park, a promising leopard reserve in Northeastern Iran, one of the highlands' major springs dried up during the past summer. The spring's water level was so low that maintaining the natural water flow from the nearby sources was impossible. Consequently, hundreds of urials were forced to go to nearby valleys in search of new water sources that are already occupied by local villagers. This situation was expected to increase poaching of urials. Accordingly, the Iranian Chee-

tah Society raised the necessary funds to develop a reliable infrastructure for maintaining the water level of the spring through various individual donors. A windmill was constructed at the spring to pump water from it's depths through several meters of pipelines, which seems to be a sustainable solution to use wind energy to secure water for the leopards and their prey.





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HUMAN DIMENSIONS OF LEOPARD CONSERVATION IN THE IRANIAN CAUCASUS

eopards in the Caucasus Ecoregion (which extends between the Black and Caspian Seas) are on the verge of extinction, with the only presumed viable population in Northwestern Iran. Besides a lack of scientifically sound distribution and population data, poor knowledge of leopardhuman interactions is one of the main obstacles for proper planning conservation for leopards in this region.

In order to have a better understanding of anthropogenic factors influencing leopard conservation in the Iranian Caucasus, the Iranian Cheetah Society launched the Dorfak Project in 2012. The Dorfak area hosts one of the few pristine forest habitats for the leopards in Iran. Partially occupied by forest-dependent communities of livestock breeders and seasonal farmers, incidents of cattle depredation by leopards and leopard persecution have been commonly reported from Dorfak. The project team led by Sima Babrgir followed a community-based approach to reveal the underlying factors human-leopard promoting conflicts in Dorfak, and how depredation of local people's cattle by the feline shapes their attitude towards leopard conservation in the area. Finally, a range of solutions was created to mitigate human- leopard conflict.

In brief, the team discovered that almost half of the interviewed respondents have experienced cattle loss due to leopards during the past three years. These losses have had a substantial impact on the people's livelihood, resulting in a strong negative attitude towards leopards. Consequently, approximately 50% of respondents expressed their willingness to launch a leopard-culling program in Dorfak. Interestingly, the ICS team found out that this negative attitude could not simply be explained by patterns of cattle depredation, but also social and demographic variables among local people. The lack of any animal husbandry practices by the residents of Dorfak was identified as the main driver of cattle depredation by leopards.

The ICS team used this information to develop a communitybased approach for mitigating conflicts, by launching a series of meetings for all the local groups of interest and encouraging the community members to get in touch with the representatives of the wildlife authority when leopard conflicts arise. A collection of locally sustainable solutions formulated at the end of these meetings addressed the main roots of cattle depredation by the leopards as well as methods to improve the current traditional animal husbandry system in target villages.



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NEW CONFIRMED LEOPARD RECORD FOR TALESH, SADLY POACHED

D uring April 2014 local wildlife authorities in Talesh County were informed that a leopard has been poached in vicinity of Chubar in Northwestern Iran. A series of investigations revealed the identity of the poacher, a longterm suspect in illegal logging activities and wildlife poaching in the area. The poacher was detained on May 25, 2014 and the wildlife authority discovered a leopard tail from the poacher's hideout, as well as photos of the dead leopard on his cell phone.

The leopard, apparently an adult male in healthy condition, was shot in highland forests

of Chubar, approximately 35 km from the Republic of Azerbaijan's border. The poacher confessed that he had sold the leopard skin for 70 million Iranian Rials. The poacher received a sentence of three years in jail and fined 50 million Iranian Rials.

The migration of leopards from the Iranian Caucasus to the border habitats has been said to support the sink populations in Armenia and Azerbaijan. Unfortunately, very little is known about the leopard presence and possible spatial movement in these transboundary habitats.



LEOPARD EDUCATIONAL CLIP RELEASED

he Iranian Cheetah Society has recently released a short clip featuring the endangered Persian leopard. In order to spread the word about the uncertain future of leopards in Iran, a 15-minute educational film was produced by ICS in the Alamut area, a region bordering the Iranian Caucasus. Funded by the Columbus Zoo of the United States, the film has been put **online** and is available for public viewing. Using a combination of music, drama and animation, the video features stories of a leopard, which has come to nearby villages in search for food. Local children try to rescue the leopard by informing local wildlife authorities.



LORA EUTHANIZED AFTER FAILURE OF ATTEMPTS FOR RECOVERY



A nother Persian leopard has been euthanized because of the severity of injuries suffered from a poaching attempt. On December 26, 2013 local wildlife authorities were informed that an apparently injured leopard has been spotted in the vicinity of Sepid Dasht, Lorestan province in western Iran. Rushing to the scene, the local authorities found a sub-adult female leopard, later named "Lora", which had signs of shotgun injuries in her back making her unable to move properly. The leopard was eventually transferred to Tehran to be inspected by a team of vets based in the Iran Department of the Environment. The team discovered that a bullet had penetrated the leopard's spinal cord, causing her to be paralyzed. After months of medical procedures and a series of operations Lora unfor--tunately did not respond well and no visible improvement was made. Finally, the team decided that the injury was irreversible. On September 27, 2014 Lora was euthanized.

Lora is the second Iranian leopard found with substantial injuries because of poaching attempts this year. Alborz, the male leopard we wrote about him in the previous issue of the newsletter, had a similar fate. Iranian conservationists believe that human persecution is one the main threats to the leopard's survival in Iran, and the current mortality data suggest that at least one leopard dies each week countrywide.



VISTORS' PHOTO DATABASE MAY CONTRIBUTE INFORMATION ABOUT LEOPARD POPULATION

ortheastern Iran hosts a number of wellknown reserves for the leopards, including Tandoureh National Park. With an area of around 400 km² near the border with Turkmenistan, the area has been under official protection since the 1960s. For years, the national park has been known as leopard country without a clear understanding of its population. Many visitors have encountered leopards in the wild here.

As part of the Tandoureh Project, a centralized database is being developed to collect all the available images of leopards taken by tourists and local wardens. Presently, a population of 30 to 45 leopards is estimated by the park manager to still exist in the area. However, without proper methodological based fieldwork, obtaining a precise figure of the population size of leopards in the park would be very difficult.

LEOPARD CUBS FOUND IN NORTHEASTERN IRAN





wo leopard cubs abandoned by unknown persons near a local wildlife authority's office in Kord Kuy, Golestan province, were discovered on August 1, 2014. The Golestan DoE says it does not know where the cubs came from or how they got to their local office in Kord Kuy.

The leopard cubs, one male and one female, immediately received their first veterinary exam and were found in healthy conditions. Golestan DoE prepared a small enclosure inside their main office in Gorgan city, where the cubs are still kept, in order to better monitor the leopards. Four months later, the leopards are in good conditions and have been remained in little contact with human. The Golestan DoE has recently released a statement that a new enclosure will be established for the leopards, although no further decision has been made if the cubs will be kept in captivity or will be released into the wild.







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The Iranian Cheetah Society (ICS) is a non-governmental, non-profit organization devoted to saving the rich but fast disappearing biodiversity of Iran. Carnivores are an essential priority within the ICS activities and various research and conservation projects have been implemented for several species, such as Asiatic cheetah, brown bear, striped hyena, grey wolf, Eurasian lynx, caracal, and Persian leopard, the latter with more than two thirds of its wild population occurring in Iran. The ICS was established in 2001 (registration number 13640) and celebrated its first decade of biodiversity conservation recently.

To learn more about the Iranian Cheetah Society (ICS) visit: www.wildlife.ir

