



# Border fence caused Persian leopard contact with humans in southeast Afghanistan

The Persian leopard Panthera pardus tulliana, categorised as Endangered on the IUCN Red List of Threatened Species<sup>™</sup>, occurs in Afghanistan. While leopards have been sporadically reported from different parts of Afghanistan, their distribution is poorly known. Most of the leopard records in Afghanistan are limited to conflict reports or random encounter records over the years. In a recent incident, a leopard reportedly hindered by a border fence along the Durand Line in Dand-e Patan District of Paktiya in southeastern Afghanistan had an encounter with humans and was subsequently killed. Villagers near the fence encountered the animal, resulting in serious injuries to community members and eventually to the death of the leopard. This incident marked the first ever record of the species from southeastern Afghanistan. The only recent record of the species in nearby areas was a case in September 2023 when a leopard showed up in Parachinar City in Khaybar Pakhtunkhwa, Pakistan. The fence is said to be the reason why the animal was exposed to humans. Border fences have been detrimental for wild species in most cases and the incident in Dand-e Patan could be one of the many cases that are rarely reported. Further research is required to understand the role the border fence plays in wildlife movement and the landscape impediments to wide ranging mammals and their conservation.

Afghanistan forms part of the distribution range of the Persian leopard (hereafter referred to as leopard), but its status in the country is not known (Moheb & Bradfield 2014, Ostrowski et al. 2022). While the species seems to have a relatively wide distribution in Afghanistan, its local distribution is poorly known (Ostrowski et al. 2022). Most of the records from Afghanistan are comprised of conflict incidents, random encounters and killing incidents (Ostrowski et al. 2022). The Persian leopard is listed as Endangered on the IUCN Red List of Threatened Species™ (Ghoddousi & Khorozyan 2023).

On 26 November 2023, a post on social media reported a leopard attacking people and sub-

sequently being killed by local communities in Paktiya Province in southeastern Afghanistan (Fig. 1). A technical team from Afghanistan's National Environmental Protection Agency (NEPA) and the Wildlife Conservation Society (WCS)-Afghanistan Program visited the area to assess the case on 2 – 4 December 2023.

## Methods

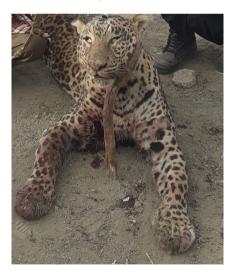
The incident happened near Zandu village in the southern part of Dand-e Patan District in Paktiya. Dand-e Patan is the southeastern district of Paktiya that borders with the Zazi Maidan District of Khost Province to the south and the Parachinar area of Kurram Agency in

Pakistan to the east (Fig. 2). Like other parts along the Durand line with Pakistan, the border in Dand-e Patan District is heavily fenced (Fig. 3A). The fence stops human and most wild-life movement from one side to the other (Sutherland et al. 2017, Bezhan & Khattak 2021). Dand-e Patan District is a mountainous area dominated by sparsely distributed Oak Forest (Fig. 3B).

We interviewed 12 people at provincial, district and community levels. People we interviewed included local authorities (n = 4), border police officers (n = 2), family members of the injured people (n = 2) and villagers (n = 3) from Zandu Village where the incident had occurred. We also interviewed one Pakistani border guard at the checkpoint on the other side of the fence. We visited the leopard killing site and examined the carcass

### Discussion

We found the leopard carcass near the kill



**Fig. 1.** Freshly killed leopard near Zandu Village in Dand-e Patan District of Paktiya (Photo by local villagers from Zandu Village).

site. It had been completely skinned, and its paws, jaws, snout and genitalia had been removed, and it was partially scavenged by mesopredators.

The interviewees stated that the leopard had been hindered by the fence along the Durand Line in the area where it encountered a local person from the nearby village. The first person who approached the leopard sustained injuries to his neck and face but managed to escape and sought treatment for his wounds in his village. His brother went to the conflict site with a machine gun to retaliate. He too sustained serious injuries when approaching the animal but eventually managed to kill the leopard by shooting it with the machine gun.

Interviewees reported the presence of other wild species such as rhesus macaque *Macaca mulatta*, wild boar *Sus scrofa*, hare *Lepus sp.*, wolf *Canis lupus*, fox *Vulpes vulpes*, golden jackal *Canis aureus*, Asian black bear *Ursus thibetanus* and some bird species such as the Chukar partridge *Alectoris chukar*. However, leopard records were rare. The only news about the species in the area in the last two decades relates to an incident that occurred in lower Zandu village around 15 years ago, where a leopard had been spotted in the area and was killed by local community members.

According to the people we talked to, including one of the Pakistani border guards, a more recent leopard record included one showing up in Parachinar City in Pakistan in September 2023. The leopard had accidentally entered a shop in Parachinar City and the government officials eventually tranquilized the animal and moved it elsewhere (Hussain 2023).

The border fence, consisting of two parallel sections of three-meter-tall barbed fence, over two meters apart from each other, attached

to the ground and filled with concertina wire coils, was installed on the Durand Line (2,640 km) between 2017 and 2021 (Basit 2021). According to a report by Geo News, 98% of the Durand Line, including the Dand-e Patan area, has been fenced (Geo News 2023). The interviewees also reported the presence of land mines installed alongside the fence on the Afghan side. There were written signs attached to the fence indicating the presence of land mines close to the fence on the Afghan side. The border fence makes it almost impossible for any land-dwelling medium and large size mammalian species to cross. Border fences create serious ecological barriers to wild species occurring along the border areas (Zhuo et al. 2024) and the land mines makes it even worse for the movement of wild species in the area. Further research is required to study the role this >2,000 km long fence plays on wild species movements and to understand the landscape impediments it creates to wide ranging mammals and their conservation.

# **Acknowledgment**

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**Fig. 2.** Location of the Persian leopard kill site in Dand-e Patan District in southeastern Afghanistan.





Fig. 3. A) Ground photo; B) satellite image of the fence along the Durand line between Afghanistan and Pakistan in Dand-e Patan District (Photo Z. Moheb).