

CAT

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news





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Original contributions and short notes about wild cats are welcome

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First recent photographic record of cheetah in Djibouti

We report the first recent photographic evidence of cheetah *Acinonyx jubatus* in Djibouti. The occurrence of cheetah in Djibouti has been unconfirmed for the past three decades. This new record indicates that Djibouti may provide important habitat for this rapidly declining species and merits further investigation.

Cheetahs, formerly widespread through much of Africa and southwestern Asia, are now restricted to about 9% of their historical distribution (Durant et al. 2017). Globally, cheetahs are classified as Vulnerable on the IUCN Red List (Durant et al. 2022) and are listed on Appendix I by CITES, although the recent rapid contraction of its range likely merits uplisting to Endangered (Durant et al. 2017). They generally occur at low densities and require large home ranges (hundreds of km² to >3,000 km²), making them vulnerable to habitat loss and fragmentation (Marker et al. 2008, Marnewick & Somers 2015, Durant et al. 2017). In Djibouti, cheetah residency has not been confirmed since at least prior to 1997 (IUCN/SSC 2007);

although they are listed as Possibly Extant, there have been no confirmed records of the species in the past three decades (H. Rayaleh, pers. comm.).

Main threats to the species include habitat fragmentation, human-wildlife conflict, and declining prey availability (Durant et al. 2022). The synergistic effect of these and other threats results in loss of connectivity, small, isolated populations, and well-documented low genetic variability (Schmidt-Küntzel et al. 2018). Illegal trafficking for the pet trade is decimating the cheetah population in East Africa, where the entire adult population is estimated at around 300 individuals (Marker 2019). In the Horn of Africa, particularly in Ethiopia and Somalia

(countries neighboring Djibouti), poaching of cheetah cubs which are smuggled into the Arabian Peninsula presents a major problem (Marker 2019).

We undertook a camera trapping survey from Djibouti City to Galafi in 2021 (42 days; 6 September–17 October 2021) and 2022 (25 days, 21 March–16 April 2022), to document medium- and large-sized mammal diversity (Buechley et al. 2021, Murgatroyd et al. 2022). In 2021, 48 camera traps, and in 2022, 41 cameras were deployed. We aimed to achieve coverage along the whole distance, while the precise camera locations were selected in the field to maximise the likelihood of encountering wildlife (e.g. near a tree, wadi, or habitat “funnel” where mammals were deemed likely to congregate). We attempted to avoid areas with high human activity, but this proved difficult given the high level of human activity across survey sites. In 2021, cameras were programmed to take photos when movement was detected (motion activated, without a delay) and passively every minute between 8:00 h and 18:00 h. Passive capture was done to offset the effect of heat on the camera’s ability to detect movement. However, this resulted in a large number of images with many of the detections being



Fig. 1. Photographic evidence of cheetah in Djibouti, taken on 30 March 2022 on the Digri Plateau, Ali Sabieh Region, Djibouti, confirming the species presence in the country for the first time in 30 years (Photo HawkWatch International).

recorded by both active and passive monitoring. In 2022, cameras were deployed using only active monitoring settings, i.e., recording a burst of three consecutive photos when triggered with a 10-second delay between bursts.

Overall, 18 (20%) cameras were stolen or destroyed by humans, despite the use of security boxes and locks to secure the cameras, and 9 (10%) malfunctioned. Nevertheless, 673 trap-nights were processed across 41 camera trap sites in 2021, and 682 trap-nights of data were collected and processed in 2022 (Buechley et al. 2021, Murgatroyd et al. 2022).

On 30 March 2022 at 01:59 h local time, six photos (two bursts with three photos per burst) of one individual cheetah were recorded by one of the camera traps (Fig. 1)

on the Digri Plateau in the Ali Sabieh Region of Djibouti, approximately 8 km west of Holhol and at an elevation of 646 m (Fig. 2). While male cheetahs can be social and form coalitions, females are solitary, except when accompanied by dependent young (Gebretensae & Kebede 2022). The individual photographed is adult, however the sex is unknown.

In addition to the cheetah, cameras on the Digri Plateau also recorded four detections of caracal *Caracal caracal* (Least Concern), which were the only detections of this species within our surveys, and two detections of spotted hyena *Crocuta crocuta* (Least Concern; only recorded in one other area). The Digri Plateau also had the highest detection rate in our surveys of Dorcas gazelle *Gazella dorcas* (Vulnerable), gene-

ric *Litocranius waller* (Near threatened), and Salt's dikdik *Madoqua saltiana* (Least Concern). Overall, we recorded the highest mammal species richness and encounter rate on the Digri Plateau relative to the rest of the transect, indicating that the area may have a prey base sufficient to support resident cheetah (Lindsey et al. 2011). During an informal discussion with locals conducted in 2021, cheetahs were reported to be present at a location 20 km west of Ali Sabieh in the Dikhil Province (D. Blount, pers. comms. 2022). However, subsequent camera trapping in this area did not record any of the cats.

This is the first survey of this type in Djibouti and results should be considered preliminary. Djibouti is a little-studied country, which has high biodiversity. As a rapidly developing country there are important conservation implications for previously unrecorded species. We recommend further survey work in the area of this sighting, as well as in other suitable habitat in the country, to assess whether there may be a significant resident population of cheetah in the country, or whether this record represents a vagrant individual.

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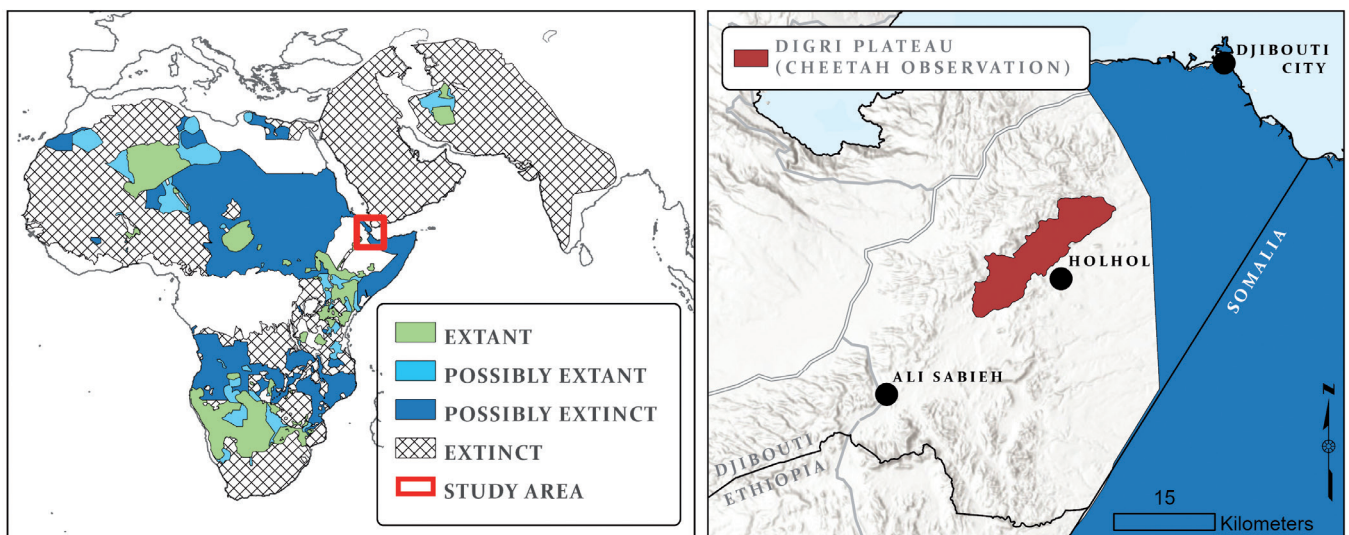


Fig. 2. A) global cheetah distribution and B) location of photographic evidence of cheetah at the Digri Plateau in Djibouti in 2022.

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