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New record of Blanford's Fox *Vulpes cana* (Mammalia: Carnivora: Canidae) in central Oman: a connection between the northern and southern populations

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The Blanford's Fox *Vulpes cana* is a small (1kg) canid associated with arid, rocky habitats within mountains and wadis (also known as valleys or dry river beds, fills up after heavy rain) (Geffen 1994). The species has a wide distribution ranging from Afghanistan in the north to Egypt, Pakistan, and Yemen in the south (Geffen 2004). Due to the inaccessibility of its habitat and its strictly nocturnal activity patterns, the species was only recently recorded from Dhofar in southern Oman (Harrison & Bates 1989). It is also known to be present in the northern Hajar Mountains of Oman (S. Ross & Spalton, pers. obs. 2002) and in the United Arab Emirates (Smith et al. 2003). In Oman, the Blanford Fox populations in the Hajar Mountains and the southern Dhofar Mountains are separated by approximately 650km of largely flat gravel desert and sand dunes. Although the IUCN Red List has mistakenly indicated that this area is within the Blanford Fox's range in Oman (Hoffmann & Sillero-Zubiri 2015), the area contains very little suitable habitat and there has been no published records or any indication through local sightings or Bedouin folklore of the presence of the species in the central regions of the country. Here we describe a small isolated population of the Blanford's Fox found within Al Wusta Wildlife Reserve (WWR) in central Oman.

The study area is located in and around WWR, Al Wusta Governorate, Oman (Fig. 1). The WWR consists of a flat limestone gravel desert, which is bounded by the Huqf escarpment, consisting of large boulders and cliffs of up to 100m. The escarpment drops to the Huqf depression and the coastal hills (Massolo et al. 2008; Fig. 1). The area is hyper-arid, receiving approximately 13.7mm of rainfall per annum (PACA 2018); however, water is often available in winter from fogs arising from the Arabian Sea and moving through the area. The WWR is home to several large mammal species and a mesocarnivore guild including Wildcat *Felis silvestris lybica*, Red Fox *Vulpes vulpes*, Rüppell's Sand Fox *V. rueppellii*, and Honey Badger *Mellivora capensis*. Small mammal prey includes Arabian Spiny Mouse *Acomys dimidiatus* and Gerbils *Gerbillus* spp. The vegetation cover is very sparse in the region between periods of rainfall. Plant cover mostly consists of trees of *Prosopis cineraria*, *Acacia ehrenbergiana*, and *A. tortilis* and scattered perennial shrubs and grasses.

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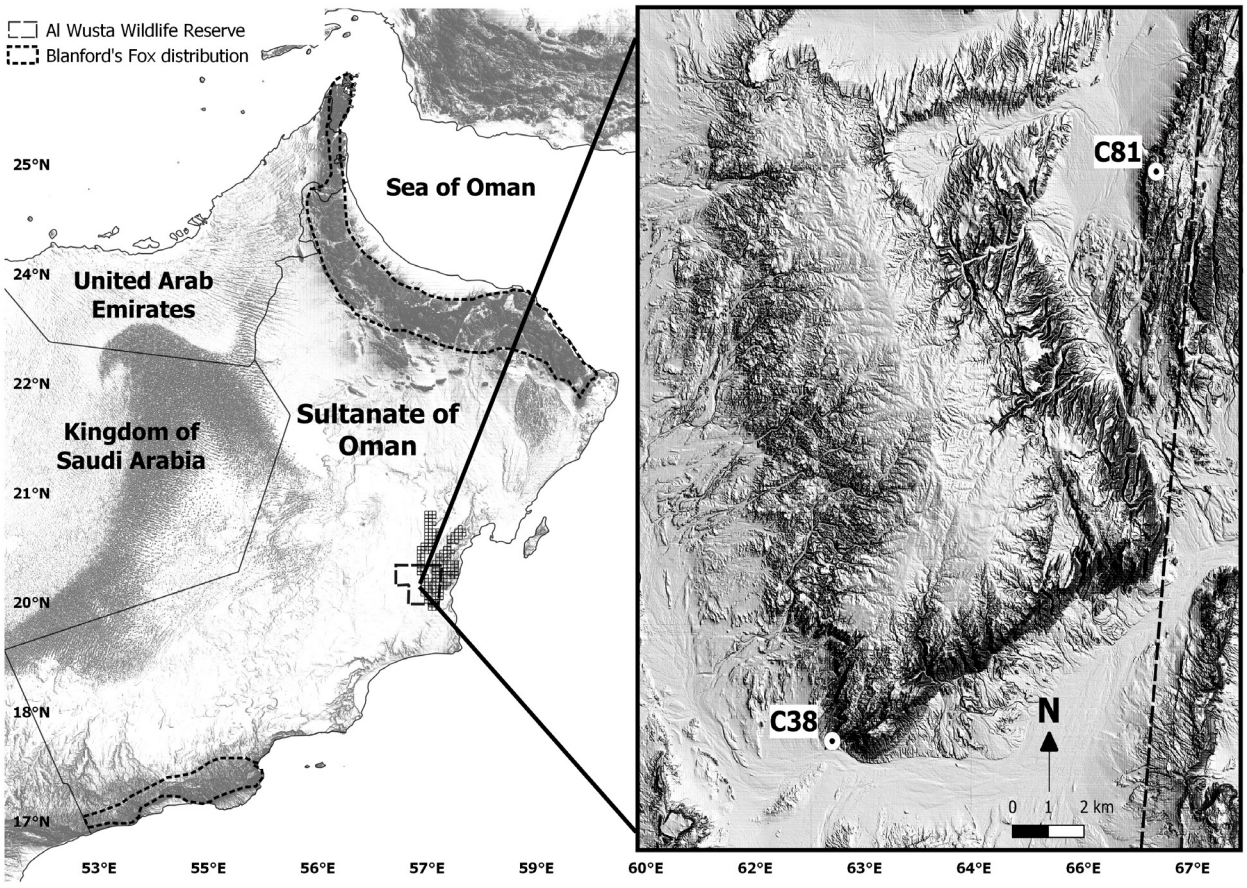

Figure 1. The study area, camera trap sampling grid, Al Wusta Wildlife Reserve (left), and the locations of the two cameras that captured the Blanford's Fox within the study area (right) in Oman.

From May 2016 to August 2018, we set up 169 camera traps (Bushnell Trail Cams) throughout the study area as part of an ongoing study of mammalian biodiversity. Cameras were set for a minimum of six months, using a 5km x 5km grid to systematically sample the study area (Fig. 1). Cameras were installed at a height of 0.25–0.75 m above the ground to survey large and medium mammals, using normal infrared sensor sensitivity to trigger a three-photograph burst with a 5s-delay between captures. The camera traps sampled an area of approximately 5,400km^2 (Fig. 1). We successfully retrieved data from 153 cameras, set for a total of 53,524 trap nights. Camera trap images of Blanford's Fox were easily distinguished from that of Red Fox and Rüppell's Sand Fox using a combination of snout and ear shape and length, body proportions, and the presence of a bushy tail with a black tip.

Blanford's Fox was detected at only two camera locations, C38 and C81 (Fig. 1). C38 was set for 529 days on a small flat area on a mountain surrounded by large boulders and small cliffs, 50m above a large valley. C38 detected Blanford's Fox on four occasions (Image 1a) and also photographed Nubian Ibex, Arabian Gazelle *Gazella arabica*, and Red Fox. C81 was set for 537 days on a mountain pass within a small mountain range consisting of large boulders, cliffs, and wadis. C81 detected Blanford's Fox on three occasions (Image 1b) and also photographed Nubian Ibex, Arabian Gazelle, Red Fox, and domestic camel *Camelus dromedarius*. All images of Blanford's Fox were taken in the dark between 17.56h and 03.36h.

Despite a very large camera trapping effort and a large sampled area, all of the cameras that photographed Blanford's Fox were in a small cluster, covering an area of approximately 46km^2. Although further research is required, the low and clustered incidence of Blanford's Fox sightings in the study area suggests that the population may be both small and isolated. It is difficult to know the reason for the populations' small size, as very few people use the area. It could be a combination of poor habitat quality and intraguild competition with Red Fox, which is a relatively common species in the

Image 1. Camera trap images of Blanford's Fox in Al Wusta Wildlife Reserve, Oman: a - camera c38 | b - camera c81.

area. There is also the possibility that the population is a remnant from dispersing Blanford's Foxes from the northern or southern populations, located approximately 310km and 330km away, respectively.

Blanford's Fox is classified as Least Concern by the IUCN Red List and is not a priority species for conservation. The small and isolated nature of the WWR population, however, warrants special regional protection. As the area is close to the port of Duqm, which is currently experiencing rapid industrial development, the area is likely to see increased disturbance in the near future. Fortunately, the identified population exists inside WWR, making protection of the population less complicated. A special protection and research plan should be initiated to protect and understand the origin and relationship of the population with both Dhofar and Hajar Mountain Blanford's Fox populations.

References

Geffen, E. (1994). *Vulpes cana*. *Mammalian Species* 462: 1–4.

Geffen, E. (2004). Blanford's Foxes, pp199–206. In: Macdonald, D.W. & C. Sillero-Zubiri (eds.). *The Biology and Conservation of Wild Canids*. Oxford University Press, Oxford, 450pp.

Harrison, D.L. & P.J.J. Bates (1989). Observations of two mammal species new to the Sultanate of Oman, *Vulves cana* Blanfords, 1877, (Carnivora: Canidae) and *Nycteris thebaica* Geoffroy, 1818 (Chiroptera: Nycteridae). *Bonner zoologische Beiträge* 40(2): 73–77.

Hoffmann, M. & C. Sillero-Zubiri (2015). *Vulpes cana*. In: The IUCN Red List of Threatened Species: e.T23050A48075169. Downloaded on 20 August 2018. Accessed on 27 January 2018. https://doi.org/10.2305/IUCN.UK.2015-4.RLTS.T23050A48075169.en

Massolo, A., J.A. Spalton, T.H. Tear, M.W. Lawrence, L. Said al Harsusi & S. Lovari (2008). Dynamic social system in Nubian ibex: can a second mating season develop in response to arid climate? *Journal of Zoology* 274: 216–225.

PACA (2018). Historical Data. In: Public Authority for Civil Aviation, National Meteorological Service, Oman. Available online at http://www.met.gov.om/opencms/export/sites/default/dgman/en/weather-chart/historical-data/

Smith, M., K.J. Budd & C. Gross (2003). The distribution of Blanford's Fox (*Vulpes cana* Blanford, 1877) in the United Arab Emirates. *Journal of Arid Environments* 54: 55–60.

Spalton, A. (2002). Canidae in the Sultanate of Oman. *Canid News* 5: 1. https://www.canids.org/canidnews/5/canids_in_oman.pdf

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