



Melanistic Jungle Cat (*Felis chaus*) in the Great Rann of Kutch, Gujarat, India

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Resumen

El 28 de enero de 2023 a las 02:30 p. m., el primer autor (DC) registró y fotografió la especie de gato de color completamente negro durante el safari en la jungla en el Gran Rann de Kutch, Gujarat, India. Con base en la evidencia fotográfica identificamos a la especie como gato de la selva (*Felis chaus*), el cual estaba afectado por melanismo. En esta nota, destacamos la importancia de la aberración cromática en los animales salvajes en sus hábitats naturales. Esto es necesario para una mejor comprensión de este fenómeno y su comprensión de las implicaciones ecológicas y fisiológicas de esta condición que afecta considerablemente la supervivencia animal.

Palabras clave: Gato, Gujarat, India, Melanismo

Abstract

On 28th January 2023 at 02:30 PM first author (DC) recorded and photographed the completely black in colour cat species during the jungle safari in the Great Rann of Kutch, Gujarat, India. Based on the photographic evidence we identified the species as Jungle cat (*Felis chaus*), which was affected by melanism. In this note, we highlighted the importance of color aberration on wild animals in their natural habitats. This is necessary for a better understanding of this phenomenon and its insights into the ecological and physiological implications of this condition considerably affecting animal survival.

Key Words: Cat, Gujarat, India, Melanism.

Melanism is found in many animal species. It is caused by a buildup of melanin pigment in the outer layers, such as skin and hair resulting in an atypically dark individual (Kettlewell 1973), such color aberration is quite common in mammals (Caro 2005). Melanism in the Felidae family has usually been proposed to be associated with biological factors such as camouflage, thermoregulation, parasites, and sexual selection (Majerus 1998, Majerus & Mundy 2003, Schneider et al. 2015, Silva et al. 2017) and ecological factors such as circadian activity and habitat use (Silva et al. 2017, Werdelin et al. 1997, Allen et al. 2011). Jungle cats (*Felis chaus*) are the most common type of wild cat in the Indian subcontinent (Menon 2014). Jungle cats are buff or grey-brown with two black stripes on their forelegs and tails. Tufts of blackish hair are present at the tips of the ear. The face is slim with dark tear stripes running down the cheeks. The Jungle cats are on average 4kg in weight in the Indian subcontinent (Prater 1971, Menon 2014). Jungle cats are classified as Least Concern (LC) in the International Union for Conservation of Nature (IUCN) Red List (Gray et al., 2021). The Jungle cat is most prevalent in India, Bangladesh, and Pakistan. It is also found in Egypt and throughout the southwest, Southeast, and Central Asia, extending its range as far as the south of China (Abu-Baker et al. 2003, Gray et al., 2021). They are most commonly found at elevations below 1,000 m asl but have been recorded in the Himalayas at 2,400masl the highest elevation record is 3,000-3,300 masl in the Annapurna Conservation Area, Nepal (Bikram et al. 2020). In India, mammal color aberration is comprehensively documented (Mahabal et al. 2019). In this note, we highlighted the melanism in Jungle cat in the Great Rann of Kutch, Gujarat, India.



FIGURE 1. Melanistic Jungle Cat in the Great Rann of Kutch, Gujarat, India. Picture Courtesy: Das Chandrasekar

On 28th January 2023 at 02:30 PM, the first author (DC) recorded and photographed the completely black in color cat species during a jungle safari in the Great Rann of Kutch, (24.086802, 69.296918) Gujarat, India. We identified the species as a melanistic Jungle cat based on the photographic evidence.

According to Chakraborty et al. (1988), there are 3 specimens in the collection of Bombay Natural History Society. These specimens were collected from Arcadia Tea Estate, Tamil Nadu (1940), Belgaum, Karnataka (1912), and Tokoli (near Gwalior), Madhya Pradesh (1914). this archive represents the first recorded instances of melanism in the present territory of India. It is notable, however, that prior reports by Pocock (1939) and Roberts (1977) had documented a melanistic specimen of Jungle cat from Karachi, Tharparker, and Thattain Sind Province of Pakistan. More recently, Sahu et al. (2017) observed melanistic jungle cats at four sites in the Talra, Khandar, and Kundera Forest ranges in Ranthambhore Tiger Reserve, Rajasthan. All these localities are in tropical ecosystems, which is in accordance with the hypotheses proposed by Caro 2005 and Allen 2010 and also the hypotheses of association with wetter areas. (Cott 1940, Ulmer 1941, Ortolani & Caro 1996,). Robert (2011) and Ramakrishnan et al. (2016) stated that habitat fragmentation, stress, and inbreeding are possible factors related to occurrences of melanism. At this juncture, more observations are needed to predict the reason behind this kind of melanism in Jungle Cat in the Great Rann of Kutch, Gujarat, India. Unfortunately, a high number of these records are left out of the literature or are not deposited in natural collections, maybe due to the lack of knowledge by the collectors and/or collection managers about the significance of this phenomenon (Samson et al. 2017, Cleamant Kiran Kumar et al. 2021, Samson et al. 2021a,b, Thatikonda et al. 2023). In this note, we highlighted the importance of color aberration on wild animals in their natural habitats. This is necessary for a better understanding of this phenomenon and its insights into the ecological and physiological implications of this condition considerably affecting animal survival (Samson et al. 2017, Samson et al. 2021a,b).

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