



First Confirmed Report of a Melanistic African Wildcat (*Felis lybica* Forster, 1780)

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Abstract

We report the first confirmed instance of melanism in an African wildcat, *Felis lybica* Forster, 1780. The melanistic individual was observed and photographed on a night drive at approximately 20:48 hours on 16 July 2025 in Tarangire National Park, Manyara, Tanzania. This record brings the total number of documented felid species exhibiting melanism to 16 of the 42 extant species.

Key words: East Africa, Felidae, Melanism, Phenotype, Pigmentation.

Resumen

Reportamos el primer registro confirmado de melanismo en un gato montés africano, *Felis lybica* Forster, 1780. El individuo melánico fue observado y fotografiado durante un recorrido nocturno aproximadamente a las 22:48 horas del 16 de Julio de 2025 en el Parque Nacional Tarangire, Manyara, Tanzania. Este registro eleva el número total de especies de félidos documentadas con casos de melanismo a 16 de las 42 especies existentes.

Palabras clave: África Oriental, Felidae, Melanismo, Fenotipo, Pigmentación.

Mammals exhibit a wide diversity of fur, or pelage, phenotypes varying in terms of both pigmentation (color) and patterning (Caro & Mallarino 2020). Felids are an excellent example, with the 42 nominal extant species being noted for their prevalence of species-specific patterns of stripes and spots (Schneider et al. 2012, Burgin et al. 2018, Caro & Mallarino 2020). Of particular interest to both scientists and society are aberrant patterns in the family Felidae including instances of melanism, or the darkening of the background coloration (Eizirik et al. 2003, Schneider et al. 2012, Ambastha et al. 2017, Cáceres-Martínez et al. 2023, Samson et al. 2024). In felids, multiple proximate causes of melanism have been

indicated including a loss-of-function mutation in the agouti-signaling protein (ASIP) gene and, less frequently, a gain-of-function mutation in the melanocortin-1 receptor (MC1R) gene (Eizirik et al. 2003, Schneider et al. 2012).

In their study characterizing the genetic causes of melanism in wild felids, Schneider et al. (2012) reviewed the known instances of melanism in the extant wild cat species, finding cases of melanism confirmed in 13 species. Since then, two additional studies have documented melanism in two other species, *Leopardus wiedii* (Schinz 1821; González-Maya et al. 2018) and *Leopardus munoai* (Ximénez 1961; Mazim et al. 2023), bringing the number of felid species from which melanism has been documented to 15. Herein, we report the first confirmed case of melanism in the African wildcat, *Felis lybica* Forster, 1780. With this new record, the number of felid species from which melanism has been reported rises to 16 of the 42 (Kitchener et al. 2017, Nascimento et al. 2021) extant species.

On 16 July 2025, the authors were on a night safari drive in Tarangire National Park, Manyara, Tanzania (Figure 1). At approximately 20h48; -4,04702, 36,14917 (1.165 masl) using a handheld spotlight, a melanistic African wildcat was observed crouched behind a small clump of vegetation and photographed (Figure 2). The animal was watched for several minutes during which time it stood and slowly walked at an angle away from the road, receding into denser vegetation.



Figure 1. Location of the melanistic African wildcat (*Felis lybica* Forster 1780) in Tarangire National Park within Tanzania (black dot) within sub-Saharan Africa (inset, red point).

During this initial night drive that commenced at about 20h00 and lasted roughly 3 hours, an additional three African wildcats were observed exhibiting normal pelage phenotypes i.e., sandy brown to yellow-grey coats with black stripes on the tail and legs. All four sightings occurred within two kilometers of one another.



Figure 2. A melanistic African wildcat (*Felis lybica* Forster, 1780) observed at approximately 20:48 hours on 16 July 2025 in Tarangire National Park, Manyara, Tanzania. Photograph by Aileen Perilla.

Subsequently on 6 August 2025 at about 21h30 in the same vicinity as the initial sighting, one author observed presumably the same melanistic individual attempting to steal an acacia rat (*Thallomys paedulcus*, Sundevall, 1846) from a normal phenotype African wildcat that had captured the rodent (GLM, personal observation).

Though low levels of hybridization between the African wildcat and the domestic cat have been detected in southern Africa (Le Roux et al. 2015), the melanistic individual reported here is unlikely to be influenced by genetic contamination by the domestic cat, *Felis catus* Linnaeus, 1758. Domestic cats are not recorded from Tarangire National Park (Kiffner et al. 2022, HL, SKL, GLM, personal observations) and are also absent or rare in surrounding conservation areas (e.g., Craft et al. 2017, Foley et al. 2018). Moreover, the sightings of the melanistic African wildcat were in the interior of the park, away from edges of the 2,850 km² protected area.

The only previous suggestion of a melanistic African wildcat was by Angwin (1975) who provided an anecdotal report without further evidence. Similarly, Dittrich (1979) suggested the existence of melanistic occurrences of the closely related European wildcat, *Felis silvestris* Schreber, 1777 without supporting evidence. The fact that the present study is the first to document a melanistic African wildcat is surprising. This common species exhibits a wide range spanning most of Africa eastward to India and China (Kitchener et al. 2017). Its reclusive and nocturnal habits may explain why no melanistic individuals have been reported prior.

Instances of melanism throughout the Felidae continue to be documented and studied. Melanism may be adaptive in regard to camouflage or thermoregulation, both of which would be plausible in this nocturnal cat species commonly inhabiting cool regions. However, whether melanism in wild felids is adaptive is still not well understood (Schneider et al. 2012, González-Maya et al. 2018).

Though this study constitutes the first record of a melanistic African wildcat, there will almost certainly be more reports in the future and likewise additional instances of melanism occurring in other felid species are likely. For now, the total number of wild felid species from which melanism has been observed rises to 16 of 42 extant species, or just 38% of the nominal taxa. Continued research into aberrant pelage phenotypes in wild felids is critical to understanding their frequency, conservation, and fitness implications.

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