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Original Research Paper

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A RARE INSTANCE OF LEUCISM IN THE EURASIAN COLLARED DOVE *(STREPTOPELIA DECAOCTO)* IN GRASSLAND OF SOUTH SOLAPUR, MAHARASHTRA, INDIA

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ABSTRACT We report the first record of total leucism for the Eurasian Collared Dove Streptopelia decaocto from Deccan region of Maharashtra, India. To our knowledge, this signifies the initial record of this specific chromatic aberration for the species within Maharashtra. From August 2022, we observed a pair of adult Eurasian Collared Dove Streptopelia decaocto one with normal pigmentation and other individual distinguished by a lack of pigmentation with fully white plumage and eyes and beak of regular colour. The zone of incidence corresponds to the semi-arid landscape of South Solapur, situated within the Deccan Plateau of Maharashtra, India.

KEYWORDS : Leucism, Chromatic aberration, Grassland, South Solapur, Deccan region

INTRODUCTION

Eurasian Collared Dove (*Streptopelia decaocto*) is the widespread resident bird (**Figure 2**) in Eurasian with sandy brown with black half-collar white sides to tail and underwing coverts white (Grimmett, R., Inskipp, C., & Inskipp, T. 2016). This species has become so commonplace in much of the Northern Hemisphere as to almost pass unobserved, and yet few people identify the amazing history of this species. From its original range, mainly in India and adjacent China, it has spread over much of the Northern Hemisphere in the last few centuries, with much of the increase in number (Romagosa, C. M. and S. G. Mlodinow 2022). Leucism, partial albinism and albinism in Aves are frequently seen colour variances. These unusual coloration in birds, frequently resulting from genetic mutation. The phenomenon has been stated in many bird species so far (Gross 1965; McCardle 2012). Incomplete or entire absence of both melanin's in feathers (and skin) due to the heritable lack of pigment cells from some or all of the skin areas which leads to all-white plumage or all-white feathers mixed with normal-coloured ones. Pink bill and feet or normal-coloured bill and feet. Always normal-coloured eyes. (Van Grouw, H. 2013). Total leucism is considered by a complete lack of pigment cells, it can be confused with the 'Brown' mutation, where eumelanin is qualitatively reduced and later bleached by sunlight to appear white. A similar case in *S. decaocto* from Gujarat, where the individual seemed white but was identified as a brown mutant due to the persistence of a faint, dark nuchal collar (Trivedi. R, 2016). Mahabal *et. al.* (2016) studied the180 available past records of colour mutations or aberrations in birds reported from India. The first occurrence of a leucistic Eurasian Collared Dove being reported from Cumilla Bangladesh South Asia (Islam, S., *et. al.* 2020). Here is no account of a total leucistic Eurasian Collared Dove in this study. As result leucistic birds are uncommon incidences this report of a partially leucistic Eurasian Collared Dove grow into an important record and worth reporting.

Observation and Methodology

Study Site and Timeline

During the bird watching near Boramani village on date 5th August 2022, at around 01:22 PM, a phenotypically distinct Eurasian Collared Dove (*Streptopelia decaocto*) was sighted in semi-arid grassland patch near Solapur-Hydrabad highway at distance of 104 meter and 213 meters away from nearest human settlement known as Chirka tanda, Boramani, South Solapur, Maharashtra (**Figure 1.**) at (17°44'17"N 76°02'25"E) and ground elevation of 516.89 meters was recorded. The observation took place in a Grassland Habitat, which is surrounded by agricultural landscape characterized by the presence of grasses and spars vegetation.

Observational Methods and Observation

The individual was monitored for a duration of 1 Hour 45 minutes from 1.22 Pm to 2:57 PM using Celestron 12x56 binoculars. To ensure scientific validity and minimize disturbance, observations were conducted from a distance of approximately 15-30 meters. Photographic documentation was carried out by using a Nikon Camera Model D7500 with Tamron 150-600 mm lens to analyse the plumage details post-sighting. Two adult individuals of Eurasian Collared-Dove (*Streptopelia decaocto)* found Actively feeding in pair (**Figure 3**), preening on grassland along with another normally pigmented (cryptically coloured) Eurasian Collared Dove (*Streptopelia decaocto*) in **Figure 2.**

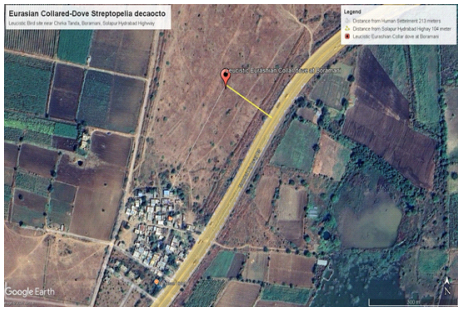

Figure 1. Location map of the study area in South Solapur, Maharashtra, where the leucistic individual was observed within a grassland-agriculture matrix.

Result, Discussion and Conclusion

The observed specimen exhibited near-total white chalky plumage across the majority of the body (**Figure 4 and Figure 5**). The soft parts of the body were characterized by dark pinkish tarsi and a blackish-grey bill; crucially, the iris coloration remained identical to that of a normally pigmented individual, representing that retinal pigmentation was preserved. Documenting such incidences in the Deccan region is vital for characterizing pigment abnormalities within the unique situation of high-UV and high-temperature open-scrub environments. Further studies are obligatory to evaluate the existence and long-term survival, predatory pressure, and reproductive success of individuals lacking cryptic coloration under these specific ecological constraints. As records from the rain-shadow regions of the Deccan Plateau in Maharashtra remain limited, this finding confirms that the genetic trait for leucism persists even in extreme environments. In such habitats, white plumage typically presents a significant disadvantage regarding both thermoregulation and camouflage, making the existence of this individual mainly noteworthy.

Figure 2. A normally pigmented (cryptically coloured) Eurasian Collared Dove (*Streptopelia decaocto*) observed in South Solapur, Maharashtra.

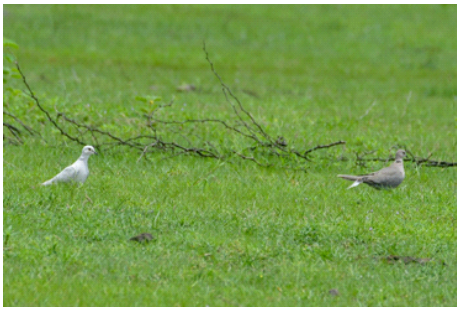

Figure 3. Total Leucistic Eurasian Collared Dove to the left and Normal Eurasian Collared Dove to the right side of image

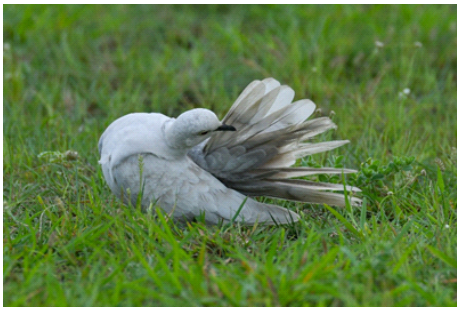

Figure 4. Total Leucistic Eurasian Collared Dove *Streptopelia decaocto* preening the features

Figure 5. Total Leucistic Eurasian Collared Dove *Streptopelia decaocto* with Normal eye colour and normal beak colour

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REFERENCES

1. **Grimmett, R., Inskipp, C., & Inskipp, T. (2016).** *Birds of the Indian Subcontinent* (2nd ed.). Oxford University Press.
2. **Van Grouw, H. (2013).** What colour is that bird? The causes and recognition of common colour aberrations in birds. *British Birds*, 106, 17–29.
3. **Trivedi, R., 2016.** Observations of some colour aberrations in birds seen in Gujarat. *Indian BIRDS* 12 (2&3): 74–75.
4. **Gross, Alfred O. (1965):** "The in Cidence of Albinism in North American Birds," Bird Banding: Vol. 36 : Iss. 2 , Article 1.
5. **Mahabal, A., Van Grouw, H., Sharma, R. M. & Thakur, S. (2016).** How common is albinism really? Colour aberrations in Indian birds reviewed. *Dutch Birding*. 38: 301–309.
6. **Romagosa, C. M. and S. G. Mlodinow (2022).** Eurasian Collared-Dove (*Streptopelia decaocto*), version 1.1. In Birds of the World (P. Pyle, P. G. Rodewald, and S. M. Billerman, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.eucdov.01.1
7. **Islam, S., Khandakar, N., & Das, D. K.** (2020). A leucistic Eurasian Collared Dove *Streptopelia decaocto* from Cumilla, Bangladesh. *Indian BIRDS*, 15(6), 188.