



A New Record of Partial Leucism in Large-Billed Crow (*Corvus Macrorhynchos*) from Uttarakhand, India

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Abstract: Partial leucism, a genetic condition resulting in reduced pigmentation, is rarely documented in wild bird populations. This study reports a confirmed sighting of a Large-billed Crow (*Corvus macrorhynchos*) exhibiting partial leucism near Ranikhet, Uttarakhand, India. The individual was observed with distinct white tail feathers, contrasting with its otherwise typical black plumage. Despite its conspicuous appearance, the crow displayed normal behaviour, including foraging, vocalizing, and maintaining social interactions within a flock of conspecifics. The sighting was documented through photographic evidence and detailed behavioural observations. This case contributes to the growing body of knowledge on plumage aberrations in wild birds and underscores the importance of field documentation in understanding genetic anomalies in avian species. Further studies are encouraged to investigate the ecological and genetic implications of leucism in bird populations.

Key words: Partial leucism • Large-billed Crow • Uttarakhand.

Introduction

Leucism is a genetic condition characterized by a partial or complete loss of melanin, leading to white or pale plumage while retaining normal eye coloration. This condition is different from albinism, which results from the absence of melanin synthesis entirely (Van Grouw et al 2016). The occurrence of leucism in wild bird populations is relatively rare but has been documented across various avian taxa. Here, we report a first case of partial leucism in the Large-billed Crow (*Corvus macrorhynchos*) from Uttarakhand, India.

The **Large-billed Crow**, commonly known as the Jungle Crow, is a widespread corvid species found across the Indian subcontinent. It is easily distinguishable by its large, thick bill, glossy black plumage, and loud, harsh calls. This species is highly adaptable and can

be found thriving in a wide range of environments, including woodlands, urban settings, farmlands, and hilly terrains.

Observations

On 23 December 2024, at Tarikhet (29.609806, 79.404425; **Fig. 01**), small town near Ranikhet of Uttarakhand state, an individual of **Large-billed Crow (Fig. 02)** with partial leucism was photographed. It exhibited white tail feathers. The bird exhibited normal behaviour, including foraging and vocalization, and appeared to be integrated within a flock of conspecifics. It stood out distinctly against the backdrop of the forested area, making identification straightforward. Photographic evidence and behavioural notes were documented during the sightings.

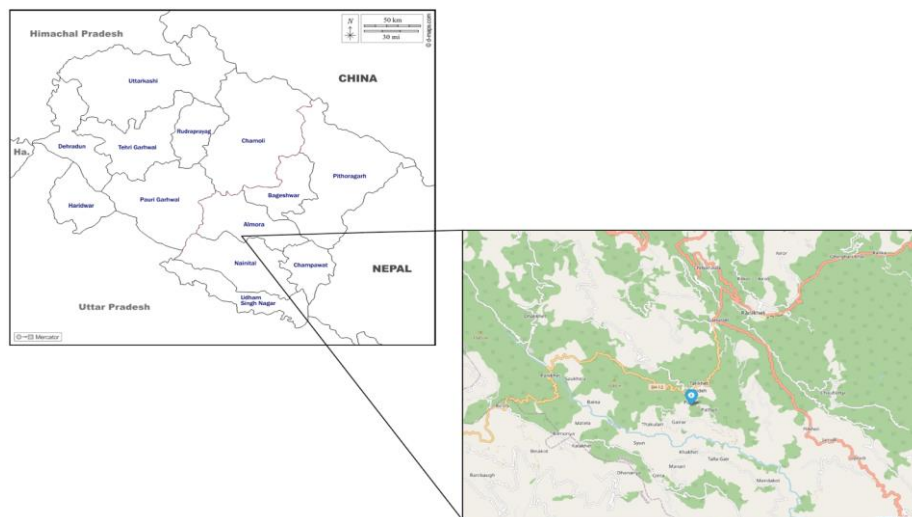


Fig 1: Location of the site, where Large-billed Crow was photographed.

The pattern of white patches suggests partial leucism rather than progressive feather wear or disease-related depigmentation. No apparent health deficiencies were noted, and the individual's eye colour remained dark, further confirming that the condition was leucism rather than albinism.

A continuous one-month observation revealed that this leucistic crow was well integrated with the other normal crows. There was no indication of social rejection or aggression from the other crows. This contrasts with a previously recorded partially albino Himalayan bulbul *Pycnonotus leucogenys* observed and documented by us (Singh et al 2020). That individual was subjected to harassment by other normally coloured Bulbuls, even though its likely normally coloured mate had completely accepted it. However, both the normal and leucistic crows engaged with each other in a friendly manner. Additionally, it is important to mention that Deepak Kumar (Kumar 2023) recorded the putative *ino* form of the House Sparrow (*Passer domesticus*) from Uttarakhand. In this paper, reviewer Hein van Grouw, clarified that the Himalayan Bulbul recorded as a partial albino in 2020 was actually an aberrant-coloured (*mutation Brown*) individual. This fact, without any doubt, is also accepted by us.

Furthermore, another individual of Large-billed Crow displaying white feathers on both wings was sighted at the same locality on 2nd December 2024. Unfortunately, we were unable to photograph this individual. This additional sighting suggests that leucism or related plumage anomalies may be more frequent in the local population than previously thought, warranting further study and documentation.

Discussion and Conclusion

The occurrence of partial leucism in *Corvus macrorhynchos* aligns with previous reports of plumage aberrations in Indian birds and is likely due to genetic mutations affecting melanin deposition. Environmental stressors, nutritional deficiencies, or pollutants may also contribute. While leucistic individuals in corvids are thought to face survival disadvantages—such as increased predation risk or reduced mating success—the consistent presence of this individual over a month suggests minimal impact on its survival. The presence of a normal companion crow implies possible social acceptance. The distinctive white tail feathers point to a rare and potentially localized genetic variation or environmental influence. This case raises important questions about the causes and consequences of leucism in wild birds.



Systematic monitoring and genetic analyses are necessary to determine the heritability and ecological implications of such plumage abnormalities. Understanding these factors can

offer insights into avian adaptation and population health, particularly in rapidly changing environments where stressors may increase the incidence of such conditions



Fig 2: Partially Leucistic tail in Large-billed Crow *Corvus macrorhynchos* at Tarikhet, Uttarakhand.

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