

First report of leucistic Little Ringed Plover from West Bengal, India

Little Ringed Plover *Charadrius dubius* Scopoli, 1786 is a bird of family Charadriidae. It is a widespread resident and winter visitor in all over India (Grimmett et al. 2011; Grewal et al. 2016). Little Ringed Plover is categorised as a 'Least Concern' species on the IUCN Red List of Threatened Species and the population trend of this bird is stable (BirdLife International 2022).

It is a small sized (14–17 cm) bird, which has uniform upper wing with only a very narrow wing-bar (Grimmett et al. 2011). It has small and dark-coloured bill with pinkish or yellowish legs (Grimmett et al. 2011). It has striking yellow eye-ring (Grimmett et al. 2011). Upperparts of the body are sandy-brown and white forehead with brown-cap (Grewal et al. 2016). Black eye masks, black breast, white neck-ring, white chin and white throat with white coloured under part are the keys of its identification (Grewal et al. 2016).



Normal coloured Little Ringed Plover.



Leucistic Little Ringed Plover.

On 13 November 2022, during birding on Damodar Riverbed (23.556N, 84.209E) in Andal Block, Paschim Bardhaman District, West Bengal at 0849 h, a colour-aberrant plover was observed by the

author along with a normally coloured Little Ringed Plover *Charadrius dubius* on the riverbed (Nayak 2022). After taking a single photograph the colour-aberrant bird flew off from the site and could not

be traced later. Nikon D5300 DSLR camera with Nikkor Af-P 70–300mm VR lens were used for photography. The bird seemed frightened and it appeared insecure, although other individuals of the species were allowed us to approach closer.

Different types of colour aberrations like leucism, progressive graying, albinism, brown, ino, dilution, melanism are commonly seen in avifaunal world (van Grouw 2021) and leucism is the most common colour aberration (Guay et al. 2012). Initially, it was presumed to be an albino Little Ringed Plover. However, interactive discussion in 'Ask Id of Indian Birds' Facebook group revealed that the individual was leucistic, since some body parts like bill, legs and feathers of eye-ring, eye-mask, stripe on forehead, breast-band, neck-band and tail were still bearing its normal colour (van Grouw 2013).

According to van Grouw (2021) leucism is a form of colour aberrations where complete lack of both the melanin pigments from some or all of the skin found and it occurs due to a neural crest disorder which results in the congenital absence of the melanin cells from some or all of the plumage area. Leucism varies from partially leucistic (few white feathers along with normally coloured other body parts found in an individual) or totally leucistic (a fully white coloured individual). A leucistic bird may have partial or full white feathered body but the eyes remain normally coloured while bill and feet may or may not have normal colour (van Grouw 2021; Gayen et al. 2022). In many cases confusion arises while differentiating leucism from albinism. Actually albinism is a

type of colour aberration when complete lack of both the melanin pigments in feathers, eyes and skin occurs due to absence of tyrosinase enzyme in the cells (van Grouw 2021). Plumage colouration has great importance for birds since it helps in camouflage, mate selection and social signalling (Gayen et al. 2022). Since colour-aberrant individuals lack camouflage and are more noticeable, resulting in higher chances of being predated than normally coloured individuals (Mayntz 2020; Gayen et al. 2022), this is possibly the cause of fear of the particular leucistic individual. It is also reported in many cases that these leucistic individuals may not be recognised or accepted by its potential mating partner (Mayntz 2020).

Author could not find any scientific report of leucism of Little Ringed Plover from Indian subcontinent although a report of occurrence of albinism in Little Ringed and Lesser Sand Plover *Charadrius mongolus* has been reported earlier by Mahabal et al. (2016). Leucistic Little Ringed Plover has been photographed before this present observation from Maharashtra, Andhra Pradesh, Kerala, and Tamil Nadu as per eight individual posts in Facebook platform. But author could not find any report on colour aberrations of Little Ringed Plover from West Bengal. However there are a few reports of leucism of some other birds from West Bengal, viz. Coppersmith Barbet *Psilopogon haemacephalus*, Lesser Whistling-Duck *Dendrocygna javanica*, House Sparrow *Passer domesticus*, Black Drongo *Dicrurus macrocercus*, Jungle Myna *Acridotheres fuscus*, and Collared Kingfisher *Todiramphus chloris*.

Although there are many reports on leucism, melanism and albinism in various species of Indian birds but no compact study has been carried out except Mahabal et al. (2016). Since leucistic birds has to face challenges like higher chance of being predated, higher chances of rejection by potential mates, feather weakening etc. in their life span. However, since this observation is confirmed to sighting of a single leucistic individual only for a very short time span, it is not possible to say whether this individual facing same challenges or not. Hence a long-term and detailed study on birds with abnormal colouration in West Bengal and India has been recommended through this communication.

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