

Observations of some colour aberrations in birds seen in Gujarat

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During my birdwatching trips to various regions of Gujarat, I have seen many birds with colour aberrations. I report here some observations of such birds. The colour aberrations of these birds were identified using the criteria given in Van Grouw (2013) who states that there are many genetic mutations that cause colour aberrations in birds, the six commonest heritable colour aberrations being, 'albinism', 'leucism', 'brown', 'dilution', 'ino', and 'melanism'.

Red-wattled Lapwing *Vanellus indicus*

I spotted a Red-wattled Lapwing with a brown colour aberration on 03 March 2009 in Aniyari Village, Ahmedabad District. The bird had normal coloured head, and eyes, but its upperparts were completely white in colour. The tail was light brownish, and contrasted with the white upperparts [82]. The brown mutation is defined as a qualitative reduction of eumelanin (Van Grouw 2013). As aberrant pigmentation caused by the brown mutation is extremely light sensitive, the feathers are bleached further by the (sun) light, and therefore they seem to be almost white.

Purple Sunbird *Cinnyris asiaticus*

On a visit to Nal Sarovar Bird Sanctuary on 11 March 2009, I saw, and photographed an adult Purple Sunbird near Kayla Village, as it looked different from a normal bird. On closer observation, I saw that it had a light brownish-coloured head. Its ventral part was completely white, lacking any pigments [83]. The Purple Sunbird seemed to be an individual in non-breeding (eclipse) plumage, and was lacking all its yellow (carotenoid) pigments, leaving the underparts whitish, and the head and back a pale greyish. Proper terms for carotenoid mutations do not (yet) exist, but it is not partially leucistic (Van Grouw, *in litt.*, e-mail dated 08



82. A pair of Red-wattled Lapwings, with the bird on the right showing the 'Brown' colour aberration.



83. Purple Sunbird showing colour aberrations resulting from mutations of the carotenoid pigments.

March 2016). Leucism is a mutation that affects the melanins only, not the carotenoids.

Eurasian Collared Dove *Streptopelia decaocto*

In Thol Bird Sanctuary, I came across two Eurasian Collared Doves on 19 September 2009. While one bird had normal plumage, the other bird was completely white, with only the half collar being slightly darkish in colour [84]. It had pinkish feet, but a dark greyish bill. This was a form of brown mutation.

Little Stint *Calidris minuta*

On 15 December 2009, I spotted a Little Stint with the brown mutation at Narara, Marine National Park, Jamnagar. It was almost



84. A 'brown' Eurasian Collared Dove.



85. 'Brown' Little Stint, with another that has its normal plumage.



87. A Sykes's Warbler showing the 'progressive greying' mutation.



86. Melanistic *Aythya* species.

Photos: Rajni Trivedi

completely white, except for a few brownish feathers on its back. It had dark pinkish legs, dark eyes, and a dark bill [85]. It was seen with another bird that was normally plumaged. I could not find any images of such birds on the Internet.

Aythya species

On 09 February 2010, I saw and photographed a duck that I thought was a melanistic *Aythya* species, in Nalsarovar Bird Sanctuary [86]. It was overall dark brownish/blackish in colour. It had normal coloured eyes, and the bill was dark grayish in colour. It was probably a Tufted Duck *Aythya fuligula*, but due to the aberrant colour, I could not identify it correctly.

Sykes's Warbler *Iduna rama*

On 04 March 2016, while birding near Ahmedabad, my attention was drawn towards a whitish bird in a tree. I took some photographs, and tried to identify it. It looked like a warbler, and based on the longer bill, and the general structure, I identified it as a Sykes's Warbler: it had a brownish forehead, but otherwise

the head, and the underparts were completely white [87]. I could not get good views of the upperparts, and hence I could not see if they were also white, or normal coloured, but the wings looked normal coloured. This individual was identified as a bird with the mutation 'progressive greying'. 'Progressive greying' arises after a bird reaches a certain age, and is defined as "the progressive loss of pigment cells with age" (Van Grouw 2013).

The occurrence of aberrant colouration—such as melanism, albinism, or leucism—is rare in birds (Sage 1963). A complete loss of all pigment is the most severe aberration in plumage patterns. It results in a bird with white plumage, and the lack of pigments in its soft parts. There are many genetic mutations that cause colour aberrations in birds, and identifying colour mutations in the field can be extremely difficult (Van Grouw 2013).

Birds with colour aberrations have been noted earlier in Gujarat (Dharmakumarsinhji 1975; Khachar 1983; Pandya 1994; Parasharya *et al.* 1996; Roy 2011).

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