Research Paper

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Observations on Partial Albinism in Baya Weaver (*Ploceus philippinus*)

Agriculture

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Albinism is an inherited genetic condition that reduces the amount of melanin pigment formed in the body, feathers and eyes of birds. Albinism is caused by a mutation in genes that interfere in the expression of the type and concentration of a pigment (i.e., melanin) Adimallaih et al 2012, and Avizanda et al 2010. In birds, this alteration causes the absence of color in the feathers and other body parts Buckley 1982 cited in Avizanda et al 2010 and occurs at a very low frequency Beltzer 1984 cited in Avizanda et al 2010. Due to the lack of melanin production in both the retinal pigmented epithelium (RPE) and iris, albinos typically have red eyes. In contrast, other alterations in the plumage pigmentation, such as leucism, result from defects in pigment cells in the feathers during development.

Albinism has been reported in birds by various authors (Doki Adimallaih et al 2012, Anil Mahabal and Sathish Pande 2006, Avizanda et al 2010, Dudgeon, 1904; Gurusami, 1992; Inglis,1903; Javed, 1992; Mahabal, 1993; Prasad, 2000; Pande et al2005; Pawashe et al 2006; and Sathiyaselvam, 2003).The ornithological literature is quite confusing regarding definitions of leucism and various states of albinism.

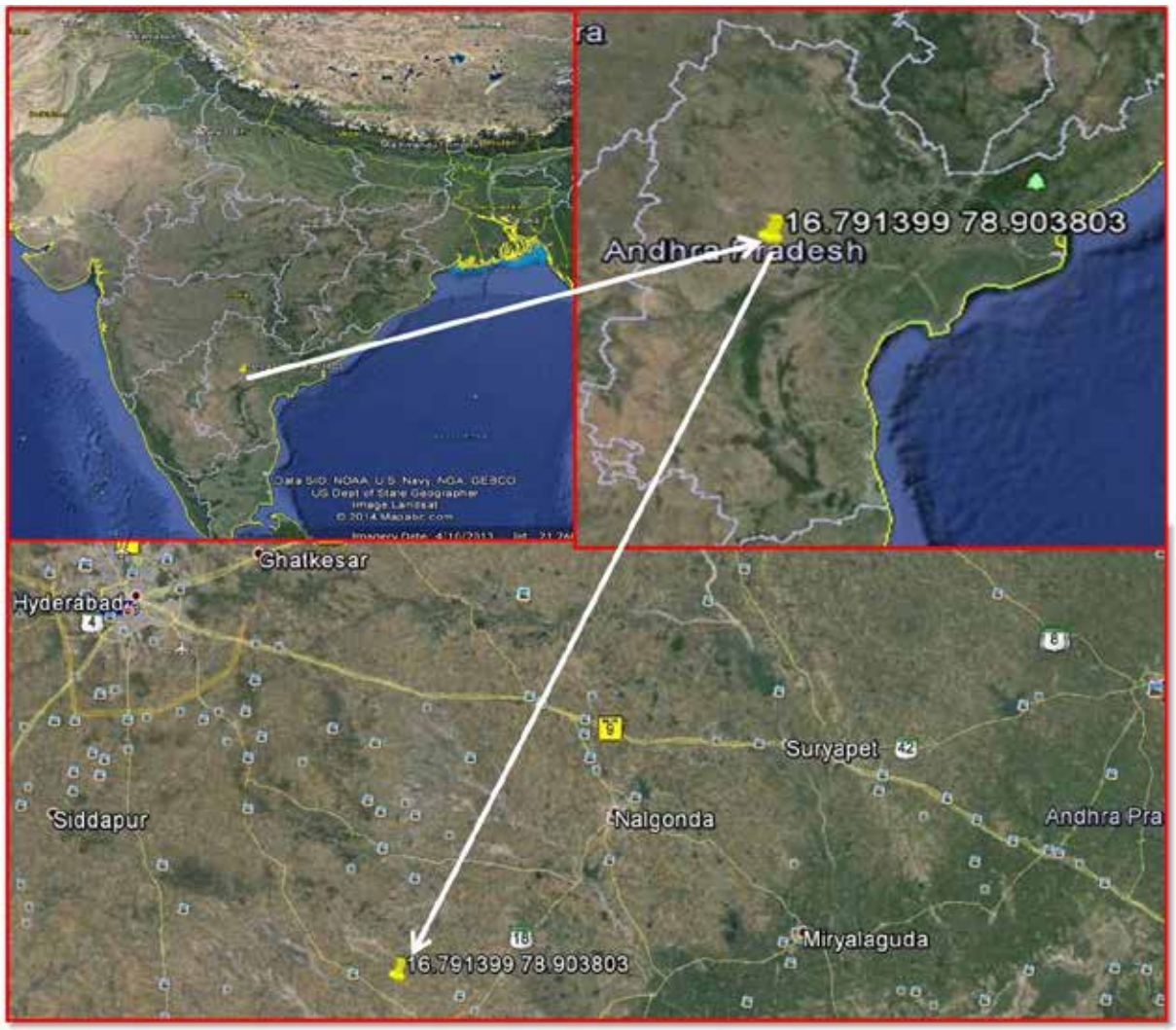
Albinism refers to birds which have some or all of the pigmentation lacking in their plumage, and are therefore partly or fully white (Sridhar, 2006). True albinos are deficient in colours not only in their plumage but also in the soft parts such as the bill and feet, and the eyes are mostly pink. However, this condition is somewhat rare and many reported albinos have normal eye, bill and leg coloration and considered as Partial albinos. Partial albinism may occasionally be caused by the failure of pigmentation to reach certain feathers as they are growing, perhaps because of a blocked gland. Shock, unbalanced diet, disease or injury is all further possible factors in causing albinism. Partial albinos out number pure albinos 2:1, but together they form only a tiny proportion of wild birds. They are, of course, generally conspicuous and therefore more likely to fall victim to predators, and in many cases; where the defect is other than genetic and they will also be less robust than normal birds.

On 02nd October 2012 we conducted a field work at Venkatampeta (16.791399°, 78.903803°) Village of Nalgonda district of Andhra Pradesh from 16.00 Hrs. to 17.00 Hrs. During the field work we sighted a flock of Baya weaver (*Ploceus philippinus*) birds which were observed of constructing nests. Observations were made on the nesting activity of the Baya weaver. During our observations, among the flock of Baya weaver birds an individual bird with a peculiar flight mode reached a tree branch of Mesquite (*Prosopis chilensis*), which is located near to the Nesting site of Baya weaver. The bird was observed and found to have peculiar colour pattern on the body. Initially we assumed that it of some different species. After the long observation we confirmed that the species is Baya weaver based on the morphological features. We observed the individual to have white patches on the wings which are not common among the other individuals of Baya weaver birds. The head portion of the bird observed to have white patches and the underparts of the body also observed to white patches. The photographs of the bird were taken by using Nikon Cool Pix100 and activity of bird was observed till its disappearance. On the basis of our field observations and photographs taken in the field we assume that the individual bird of partial albinistic since the characters observed of partial albinism. Though albinism common among various birds, there was no report on the albinism of Baya weaver. Moreover this is the first report from Andhra Pradesh on the partial albinism of Baya weaver.

Field Characters:

Some of the following characters were noted in the albinistic Baya weaver. The crown is normal with white patches. The greater coverts in the wings are with white patches and the other parts of wing are normal. Median, lesser coverts covered with fluffy white hair. The under parts of the bird are also with white spots all over. Eyes and beak are normal colour. However, in the observed bird, characterized are in partial white in colour. It clearly indicates the bird observed during our observation in considered as partial albinism in relative.

A view of albino Baya Weaver on Prosopis chilensis plant



Location of the site

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