Bill deformities in Sand larks (*Calandrella raytal*) in Bangladesh

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**Abstract**
A survey was carried out between March and April 2015 in some charlands of Jamuna river of Bangladesh for avian research. Huge aggregations of migratory birds as well as resident birds were observed here. During this time frame two unusual Sand Larks (*Calandrella raytal*) with deformed beak were spotted. Although systemic survey was done during the study period but we opportunistically found those deformed Sand Larks. Exact causes for their bill deformities are unknown but this information would be helpful for further in depth research in the field of ornithology.

**Keyword:** Sand Lark, Bill deformities, Jamuna River, Bangladesh

1. **Introduction**
Bill deformities are common in many avian taxa and mentioned by various authors in scientific publications [2, 3, 4, 5, 7, 9, 10, 12, 15, 16, 18]. Pomeroy [15] stated that abnormal bills- subjectively defined as being noticeably “different from the normal”- in wild birds are rare, with a frequency estimated at less than 0.5%. The majority of deformities included elongated and downcurved maxilla and crossed bills. Notably most of the references are from the North American countries and Europe [13]. The Sand Lark (*Calandrella raytal*) is a small terrestrial passerine with rounded wings and a short tail. It has finely streaked sandy gray upperparts and whitish underparts with finely streaked breast, a whitish supercilium and pale gray ear-coverts. Relatively fine bill is horn-brown with a yellow or green touch and blackish tip. The both sexes look alike [1, 14]. It is a common resident bird and widely distributed in sandy riverbeds and coasts of Bangladesh [14]. It is a least concern species for Bangladesh [11].

2. **Materials and Methods**
For the present report opportunistic survey technique was followed. Two DSLR Camera (Canon 7D with 300mm lens and Canon 60D with 55-250mm lens) and one binocular (Vortex 8×42) were used for taking relevant photographs and observation. No birds were captured during the study.

3. **Observation**
On 7th March 2015, an unusual solitary Sand Lark (*Calandrella raytal*) was observed in a small char namely Maizbari, Kazipur of Sirajganj district in Jamuna River (24°67´N and 89°64´E), Bangladesh. It was seen foraging in the sand. The top mandible (maxilla) and lower mandible were both extensively long and downcurved than the regular characteristic bill of Sand Lark. Other than such type of bill no unusual characteristics were observed for this bird. At the same time usual Sand larks and Bengal Bushlarks (*Mirafra assamica*) were also observed foraging nearby (Fig 1).

On 1st April 2015, another extensive survey was carried out in the same area and another Sand Lark (*Calandrella raytal*) with deformed bill was spotted. During that time the bill of the bird was not much long and downcurved as observed earlier.
Fig 1: Sand Larks of the study area (A) Normal individual; (B) & (C) Individuals with bill deformities (Photo: Ashis Kumar Datta).

4. Conclusion
According to Craves [6] possible reasons for bill deformities include genetic or developmental causes, injury or disease. Several researchers [8, 15, 17] could not produce conclusive evidence to support any of these causes. The present reports of the deformed bill of Sand Larks were observed in a char land that is completely devoid of human habitation and usually flooded under water at some period of the year. At present we do not know the exact cause of bill deformities in the Sand Larks being reported here. Further studies are required to understand the causes and significance of the bill deformities in the Sand Larks in that particular area.

5. Acknowledgements
We would like to thank IUCN Bangladesh for their financial support and arrangement of the field visits. Special thanks to Arif (Boatman and local guide) for assisting us in the field.

6. References

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