

Short Communication**Beak Abnormality in Indian Rock Dove (*Columba livia*) in Nilgiris, India**Sirajudeen Mohammed Shahir¹, N. Moinudheen², Anbazhagan Abinesh³ and Arockianathan Samson¹¹Department of Zoology and Wildlife Biology, Government Arts College, Udthagamandalam 643 002; The Nilgiris, Tamil Nadu; ²Independent Biologist; ³409/155 Lakshmi NAnjan Nivas, Stanley park, Coonoor, India*Received: March 31, 2023; Revised: April 23, 2023; Accepted: May 4, 2023*

Beak abnormalities have been reported across a wide range of avian species (Pomeroy, 1962; Craves 1994). Beak deformities are typically rare (<1%) in wild bird populations (Pomeroy, 1962; Tweit et al. 1983; Nogales et al. 1990; Rockwell et al. 2003), and most reports relate to single individuals (Craves, 1994). Recently, however, epizootics of beak deformities have occurred in resident species in Alaska (Handel et al. 2010) and in other regions of North America (Van Hemert and Handel, 2010; Van Hemert, et al., 2012). In this note, the researchers present one record of a deformed bill in a rock dove (*Columba livia*) in Nilgiris, Tamil Nadu, India.

On 10/3/2023, the researchers observed a beak deformity in a rock dove from Ooty, from a human habitation of the Upper Nilgiris (11.399209, 76.704345). The deformation was observed in the upper mandible of this bird which was found to be oversized (Figure 1). In India, very

little information is available on beak deformities in birds namely common myna (*Acridotheres tristis*), Indian Jungle Crow (*Corvus culminatus*), Indian House Crow (*Corvus splendens*), Indian Rock Pigeon (*Columba livia*), Indian Eagle Owls (*Bubo bengalensis*), and Ashy-crowned Sparrow-lark (*Eremospterox griseus*) (Pandey, et al., 2018; Siva, et al.; 2021; Anurag and Yadav 2021; Chouhan, et al.; 2022; Samal, et al.; 2023). Van Hemert and Hallen (2010) reported that the handling of the food by birds with bill deformities may cause a functional limitation. Bill deformities may also prevent the bird from having a defence against ectoparasites (Clayton, et al.; 2005), which is likely to produce a decrease in its health conditions. Functional limitations and the decreasing health conditions can affect survival, which may be the reason why bill abnormalities are uncommon in wild birds, with a frequency estimate of less than 0.5%



Figure 1. We observed a deformation in the upper mandible of this bird which was found to be oversized.

(Pomeroy, 1962). The records of the Rock Dove show it is was very healthy even though it has been affected by bill deformities. Thus, the researchers believe that this abnormality has not significantly affected the feeding abilities of this Rock Dove because the bird has apparently survived and remained healthy to the age recorded. This state contrasts with that of other birds where the abnormality of the bill may have increased the mortality rate and led to the death of the bird (Marti, *et al.*; 2008).

The causes of the bill abnormality in this individual are unknown, but the current record increases knowledge on the presence of development deformities in birds. This is important for future monitoring because an increase in the incidence of abnormal bills in birds could indicate environmental toxicological problems in resident areas.

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