



New addition of two IUCN Red listed bird species of order: Gruiformes for todgarh-raoli wildlife sanctuary, Rajasthan, India

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Abstract

This paper deals with one family (Gruidae) addition and one genera (*Amaurornis*) belonging to order Gruiformes are addition to avifaunal diversity of Todgarh-Raoli wildlife sanctuary, Rajasthan. Sarus Crane is Vulnerable and White breasted waterhen is Least Concern in IUCN red list are first time sighted and photographic evidence from this sanctuary. Taxonomic description, distribution, vernacular name, present status, location map and photographs are provide here for their easy identification and updating of avian diversity of Todgarh-Raoli wildlife sanctuary.

Keywords: avifauna addition, family, genus, todgarh-raoli

Introduction

The presence of a variety of organisms reflects the biological diversity of that particular expanse. The term 'biodiversity' reflects to totality of genes, species and ecosystem of a region. Species are distinct units of diversity with each having a specific role in an ecosystem (Shekhawat and Bhatnagar, 2014) [11]. India is one of the 12 mega-biodiversity countries, represents 1313 bird species (Grimmett *et al.*, 1998) [6]. Out of these, 634 bird species reported from Rajasthan (avibase bird checklist, 2020).

Order Gruiformes contains a considerable number of living and extinct bird families, with a widespread geographical diversity. This order represents 159 species in world (Anthal & Sahi, 2017), out of these 30 species reported from India (Birding.in, 2013) and 18 species reported from Rajasthan (Avibase bird checklist, 2020). In this sanctuary, only three species belonging to family Rellidae reported i.e. *Gallinulo chloropus*, *Fulica atra*, *Porphyrio porphyrio* (Koli, 2014) [8].

Study area

This Sanctuary is situated between 73°40' – 74°10' east longitudes and 25°20' - 26°0' north latitudes, covers an area of about 495.27 km² and extended in three districts viz. Rajsamand, Pali and Ajmer in the south-western part of Rajasthan State.

Material and Methods

The present study was an aim to new sighting and addition of Avifaunal diversity from Todgarh-Raoli wildlife sanctuary. During the survey of sanctuary from year 2015 to year 2019, we have sighted 2 wetland bird species of order Gruiformes. All the bird species have been identified by using various published literature (Ali & Ripley, 1986; Beaman & Medge 1998; Grimmett *et al.*, 1999) [2]. After critical study, both species are addition to avian diversity of this sanctuary.

Result and Discussion

Order Gruiformes represents 18 species from Rajasthan, out of which 3 species belonging to family Rallidae reported from this sanctuary. Family Gruidae represents 4 species from Rajasthan and first time report this family (Sarus Crane) from this sanctuary. Family Rallidae represents 13 species from Rajasthan, out of which 3 species reported from this sanctuary. During the survey, we sighted first time genus *Amaurornis* (White breasted waterhen) from this sanctuary. Both species are addition for Avifaunal diversity of Todgarh-Raoli wildlife sanctuary. Current nomenclature citation, taxonomic description, distribution, along with vernacular name, and status of each bird species are provided below in alphabetical order.

1. *Amaurornis phoenicurus* Pennant, 1769.

Taxonomic description: Adult has grey upperparts and white face, foreneck and breast, undertail-coverts rufous-cinnamon. Bill and legs are greenish or yellowish, with swollen reddish base to upper mandible. Juvenile has greyish face and sides of neck & breast, browner upperparts, bill and legs are darker. Voice mainly vocal when breeding; calls include a metallic krr-kwaak-kwaak and a kook.....kook.....kook often following loud roars, croaks and chuckles. Habit thick cover close to fresh water (Photo Plate).

Distribution: Bangladesh, Pakistan, Sri Lanka, Maldives, Myanmar and India (Ali & Ripley, 1986) [2].

India- Andaman and Nicobar, Assam, west bengal, Karnataka, Maharastra, Tamilnadu, Gujarat and Rajasthan.

Rajasthan- Bharatpur, Jhunjhunu, Dholpur, Alwar, Chittaurgarh, Churu, Jodhpur, Jaisalmer, Bikaner and Sirohi.

Vernacular name: White Breasted Waterhen.

Status: Least concern (IUCN red list).

Note: The Genus *Amaurornis* (White Breasted Waterhen) is first time report from this sanctuary. When an individual

actively searched for food or successfully captured and swallowed any food item then the observation was recorded as foraging and feeding. Sometime it was seen to feed and wade simultaneously, and then it was recorded as feeding not wading (Akhtar *et al*, 2013)^[1].

Location with GPS: Todgarh-Raoli wildlife sanctuary, Raoli Range, Tilakheda, 28.Feb.2019, 25°46'4.342"N, 73°58'57.347"E, 434.1m; Bijaguda Range, Pachanpura village, 8. Sept. 2018, 25°57'36.821"N, 74°3'19.751"E, 354.8m (see in location map).

2. *Antigone antigone* (Linnaeus, 1758).

Taxonomic description: A huge, mainly pale grey crane with reddish legs and very large bill. Adult is grey, with bare red head and upper neck and bare ashy-green crown. In flight, black primaries contrast with rest of wing. Immature has rusty-buff feathering to head and neck, upperparts are marked with brown; older immature are similar to adult but have dull red head, and upper neck and laek greenish crown of adult. Voice is very loud trumpeting, usually a duet by pairs at rest or in flight. It is habitual in well watered country; also marshes, lakes and large rivers (Photo plate).

Distribution: The current range of the Indian Sarus Crane includes the plains of Northwestern India, the Western half of Nepal's Terai lowlands and parts of Pakistan, Myanmar, Laos, Vietnam and Cambodia and Australia.

India- Uttar Pradesh, Gujarat, Haryana, Madhya Pradesh, Bihar and Rajasthan (Kushwaha *et al*, 2018)^[10].

Rajasthan- Kota, Bharatpur, Dhaulpur, Sawaimadhopur, Bundi, Baran, Jhalawar, Tonk, Ajmer (Ajmer City), Jaipur, Nagaur, Bhilwara, Chittaurgarh, Udaipur, Dungarpur and Banswara (Kaur *et al*, 2013; Vyas, 2001)^[7, 12].

Vernacular name: Sarus Crane

Status: Vulnerable (IUCN red list).

Note: The family Gruidae (Sarus Crane; Globally Threatened) is first time report and addition for Avifaunal diversity of this sanctuary. It is food habit is mostly eating forage in shallow water or in fields, frequently probing in mud with their long bill. They are Omnivorous, eating insects, aquatic plants, fish, frog, crustaceans and plant seeds.

Location with GPS: Todgarh-Raoli wildlife sanctuary, Raoli Range, Tilakheda, 28-Feb.-2019, 25°46'4.391"N, 74°3'19.751"E, 492.2m (see in location map).

Conclusion

Family Gruidae is first time reported and family addition to avifaunal diversity of this sanctuary. The bird of this family is Sarus crane, sighted near Tilakheda, Raoli range in early morning time and photographs were taken. The genus *Amaurornis* is observed early in the morning at Tilakheda; is first time reported and genera addition to avifaunal diversity of this sanctuary. This bird is White breasted waterhen, which is also observed near Pachanpura village, Bijaguda range and photographic evidence taken.

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