

A checklist of the family Scolopacidae (Charadriiformes: Aves) from the Padma River charland, Rajshahi District, Bangladesh

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Abstract: Bird watching is continuing at the Padma River charlands of Rajshahi district since 2005. The study area ranged from Godagari (24.4667⁰N, 88.3306⁰E) to Bagha (24.19177⁰N, 88.833⁰E) upazillas of the district. Among a number of charlands of the study area the larger ones (N=15) were chosen for bird watching, because of varied habitats, easy communication and safety. The chars adjacent to Rajshahi city area was visited one char once in a week, from October to May, covering 2-4 km long and 1-2 km inside the chars. The observation period was mostly early in the morning continued for 3-4 hours, and sometimes in the afternoon for 2-3 hours before the sun sets. The distant chars were visited once in a month from January to March. Photographic data and field notes were compiled with books and internet to identify the birds recorded. During the study period total 20 species of the wader birds of the family Scolopacidae were identified under eight genera. Among these species 6 (30%) are under the genus *Tringa*, and similar number are members of the genus *Calidris*, the other six genera included one species each. All the species are winter visitors of Bangladesh, 13 (65%) are common, 5 (25%) are uncommon and 2 (10%) are rare. Five of these species prefer to forage singly or in pair, the rest 15 species forage in small to large flocks. The scolopacid birds mostly arrived at the study area in last of October and reside until the start of monsoon. All the species are 'Least Concern' from the point of conservation.

Key words: Scolopacidae, wader bird, Padma River charland.

Introduction

Scolopacidae is one of the familie of the order Charadriiformes under the class Aves. This family includes the wader or shore birds with short or long legs, slender bills, pointed and angular wings. Members of this family are shanks, sandpipers, snipes, stint, godwit, ruff and allies, all these birds inhabit in freshwater and coastal wetlands. Worldwide there are total 88 species under 23 genera of this family, and of which 35 species under 15 genera are reported to seen in Bangladesh (Siddiqui *et al.*, 2008). Most of the species of Bangladesh are winter visitors, a few are uncommon residents. Large numbers of these birds arrive in wetlands, newly deposited charlands of large rivers and mud-flats along the coastal belt of Bangladesh during the late autumn (October-November) and return back after winter. However, those residing at the river charlands extend their stay until the water level of the river starts to rise.

Formation of the river charlands are related to water cycle of the river basin, and these are complex ecosystems serving as the transitional zones between aquatic and terrestrial habitats. Variability in water flow influence the spatio-temporal distribution of the riparian consumers including the river birds (Royan *et al.*, 2013). The charlands and associated water channels provide different

types of food chains, shelter and reproductive isolation to animals, especially to the birds (Claassen, 2004). The river charlands and sandbars are known as "heaven for the nesting birds" because these are less interrupted by predators and human.

A previous study showed that a rich avifauna reside in the Padma River charland, which include migratory and residential species (Reza and Parween, 2014). Waterbirds of different families winter in these charlands, among which members of Scolopacidae family are maximum (Reza *et al.*, 2014). There is no published reports on the waterbirds of the Padma River charlands are available except Reza and Parween (2014 and Reza *et al.* (2014). This paper is a checklist of the family Scolopacidae recorded from the Padma River charlands of Rajshahi district, the northwest region of Bangladesh.

Materials and Methods

Study area and observation period: The study area at the Padma River charlands was ranged from Godagari upazila (24.4667⁰N, 88.3306⁰E) to Bagha Upazila (24.1917⁰N, 88.8333⁰E) of Rajshahi district. There are a number of large and small chars in this area of the Padma River (Map 1). The large chars of

Scolopacidae from Padma charlands

the river were selected for bird watching because of easy communication, varied habitats, and safety. The study areas include the following spots for bird observation:

Godagari Upazila: Bidirpur char and Premtali char;

Rajshahi Sadar upazila: Haripur char; and char sites in the city, Bulonpur, Police Line to Central Park, Old Post Office to Alupatti ghat, Talaimari Shaheed Minar to Kajla Fultoli ghat, Shyampur;

Sardah and Bagha upazilas: adjacent chars to the human habitation areas.

each time was nearly 2-4 km long and around 1-2 km inside the char. This routine is maintaining from October 2005 to April 2018. Bird watching was mostly started 6.30 am, and more or less 3-4 hours were spent. Sometimes the study was at the late afternoon till sunset, for about 2 hours.

The charlands situated at other Upazila like, Godagari, Sardah and Bagha upazilas were visited once in the months from January to March every year. These visits were mostly done in the late afternoon till sunset (for about 2-3 hours before sunset).



•Study area

Plate 1. Map of study area of Padma River charlands (Source: Google Map)

The present report is prepared based on field studies on the charlands of the Padma River during a period from March 2005 to March 2018. The field studies were carried by bird watchers of Department of Zoology, University of Rajshahi, Bangladesh.

Bird watching sites and schedule: The charlands those are adjacent to the Rajshahi city area were visited most frequently, one in every week. During the winter walking in the chars started from Bulonpur (west point of the city) up to Old Post Office (middle point of the city), or from Kazla Fultali ghat to Shaheed Minar (east points of the city), or from BCSIR (Bangladesh Council for Science and Industrial Research) to Shayampur (east end of the city). During these visits area covered

Data recorded: Digital Cameras: Still Camera (Nikon D3000 DSLR, 70-300 mm Nikor lens); Video Camera (Sony DCR SR 68), and a pair of binoculars were used for bird watching. The calls and songs of the birds were recorded with a sound recorder (Samsung Mobile Phone recorder). Besides that the morphological characters observed, habitat and the movements of birds were noted in a field notebook from all these data the birds were identified.

Identification of the species

The birds were identified from their images and with the help of published literature, viz., Baker (1922-30), Ali (1961, 2002), Ali & Ripley (1968-1972), Grewal *et al.* (1993), Halder

(2010), Khan (2008), Khan (2015), Siddiqui *et al.* (2008), Grimmett *et al.* (2012); and also using the documents from the internet. The identified birds were confirmed by some bird experts. Not only the bird species, but their food and foraging habits, call, and flight of few species were noted and later confirmed from the published literature.

Results and Observation

Species Diversity: Total 20 species of the family Scolopacidae were identified during the study period. These species are members of eight genera *viz.*, *Rostratula*, *Limosa*, *Tringa*, *Xenus*, *Actitis*, *Arenaria*, *Calidris* and *Philomachus* (Table 1). Among the recorded species six (31.58%) are under the genus *Tringa* and six species (31.58%) are under the genus *Calidris*. The remaining six species are representatives of the other six genera. *Xenus*

is a nonspecific genus of the world, and the species is named as *X. cinereus* (Terek Sandpiper).

Habitat: All these water birds were found to forage at the long or patchy water edges of the sandy areas of the charland. The water areas were covered with small aquatic vegetations, and water colour was muddy and muddy-green. Sometimes the birds were observed to feeding on aquatic insects of the charlands. Most of the species were found to forage in small flock, but in 2017-2018 large flocks of Ruff (*P. pugnax*) were found until last of March.

Status of the species in the study area: Among the 20 species 13 (65%) are common winter visitors, 5 (25%) are uncommon winter visitors, and 2 (10%) are rare winter visitors (Table 1).

Table 1. Checklist of the family Scolopacidae recorded from the Padma River charlands of Rajshahi district of Bangladesh.

Serial No.	Scientific name	Common English name	Bangla name	Status in Bangladesh	IUCN status
1	<i>Rostratula bengalensis</i> (Linnaeus, 1758)	Greater Painted Snipe	Ranga Chaga	Common Winter Migrant	LC
2	<i>Limosa limosa</i> (Linnaeus, 1758)	Black-tailed Godwit	Kalolej Jourali	Common Winter Migrant	LC
3	<i>Numenius arquata</i> (Linnaeus, 1758)	Eurasian Curlew	Euresio Gulinda	Common Winter Migrant	LC
4	<i>Tringa glareola</i> Linnaeus, 1758	Wood Sandpiper	Tila Chapakhi	Common Winter Migrant	LC
5	<i>T. ochropus</i> Linnaeus, 1758	Green Sandpiper	Sabuj Batan	Uncommon Winter Migrant	LC
6	<i>T. stagnatilis</i> (Bechstein, 1803)	Marsh Sandpiper	Beel Batan	Uncommon Winter Migrant	LC
7	<i>T. nebularia</i> (Gunnerus, 1767)	Common Greenshank	Pati Sabuj Pa	Common Winter Migrant	LC
8	<i>T. totanus</i> (Linnaeus, 1758)	Common Redshank	Pati Lal Pa	Common Winter Migrant	LC
9	<i>T. erythrops</i> (Pallas, 1764)	Spotted Redshank	Tila Lal Pa	Uncommon Winter Migrant	LC
10	<i>Xenus cinereus</i> (Guldensdadt, 1775)	Terek Sandpiper	Terek Batan	Common Winter Migrant	LC
11	<i>Actitis hypoleucos</i> Linnaeus, 1758	Common Sandpiper	Pati Batan	Common Winter Migrant	LC
12	<i>Arenaria interpres</i> (Linnaeus, 1758)	Ruddy Turnstone	Lal Nuribatan	Uncommon Winter Migrant	LC
13	<i>Calidris ferruginea</i> (Pontopiddan, 1763)	Curlew Sandpiper	Gulinda Batan	Common Winter Migrant	LC
14	<i>C. alpina</i> (Linnaeus, 1758)	Dunlin	Dunlin	Rare Winter Migrant	LC
16	<i>C. alba</i> (Pallas, 1776)	Sanderling	Sanderling	Uncommon Winter Migrant	LC
17	<i>C. temminckii</i> (Leisler, 1812)	Temminck's Stint	Temmincker Chaha	Common Winter Migrant	LC
18	<i>C. minuta</i> (Leisler, 1812)	Little Stint	Choto Chaha	Common Winter Migrant	LC
19	<i>C. ruficollis</i> (Pallas, 1776)	Red-necked Stint	Lal-ghar Chaha	Common Winter Migrant	LC
20	<i>Philomachus pugnax</i> (Linnaeus, 1758)	Ruff (male), Reeve (female)	Jeola Batan	Common Winter Migrant	LC

LC: Least Concern

According to the record given by Siddiqui *et al.* (2008), 21.59% of the total world species of scolopacidae are found at the Padma River charlands, which is 35% of the species found in Bangladesh. These birds arrive at the study area in October to early November in 2017 and disappear in last of May 2018 when the monsoon season starts.

Conclusion: The history of birding at the sandbars of the River Padma in the Rajshahi District area (from 2005 to 2018) reveals that it is a hotspot of migratory (Reza and Parween, 2014) and water birds (Reza *et al.*, 2014; Parween and Reza, 2016). During the survey it was felt that the study area has remarkable significance for conservation of resident and migratory birds. The spatiotemporal patterns of their distribution, habitat use by them, structure of their communities and the status of their population remained untouched, which should be unveiled. This checklist of the family Scolopacidae will catch the interest of bird watchers, ornithologists and conservation biologists to work at Padma River other river charlands of Bangladesh.

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