

NOTES ON MID-WINTER WATERBIRD POPULATION OF SOME SELECTED WETLANDS OF BANKURA AND PURULIYA DISTRICTS, WEST BENGAL

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INTRODUCTION

Knowledge about the composition, population trends and distribution of waterbirds is a fundamental tool for conservation and management of wetlands as well as winged species. Information on these aspects including arrival and departure schedules of overwintering waterfowl is scanty in India (Ali and Ripley, 1983; Ambedkar and Daniel, 1990; Lopez and Mundkar, 1997; Bhupathy *et al.*, 1998) and also in West Bengal (Prakiti Samsad 1999). Due to this reason, mid-winter survey was made at the end of January, 2000, to study the diversity and distribution of waterbirds from eight selected wetlands, four each in Bankura and Puruliya districts, West Bengal. Waterbirds were counted from vantage points using a binocular and also a boat in Saheb bundh, Adra of Puruliya district. Counting was made only once either from 7.30 to 11.30 hrs in the morning or from 14.00 to 17.00 hrs in the afternoon.

RESULTS AND DISCUSSION

The composition and count data of the waterbirds encountered during the course of survey was presented in Table 1, as well as ecological parameters in Table 2. These waterbirds represent a total of 34 species comprising of 11 resident (R), 12 resident migrant (RM) and 9 migrant (M) categories belonging to 24 genera, 7 families and 6 orders. In general, it includes 32 species of waterfowls and 2 species of waders *viz.*, Yellow-wattled Lapwing, *Vanellus malabaricus* and Green Shank, *Tringa nebularia*. Among waterfowls, there were 12 species of ducks and geese, 8 species of herons, egrets and bitterns, 4 species of rails and the rest 6 species comprising of grebes, cormorants, etc. All the 9 migrant avian species were waterfowls (Anatidae) representing ducks and geese from wetlands of Puruliya district only. Amongst the resident anatid ducks, the Lesser Whistling Teal, *Dendrocygna javanica* were found in large flocks in both the districts, namely, Jamuna bundh of Bankura district and Saheb bundh of both Adra and Puruliya town of Puruliya district. The other resident anatids include Comb Duck, *Sarkidiornis melanotos* and Cotton Teal, *Nettapus coromandelianus*. The breeding population of resident ducks could not be observed in

Table 1. Composition and count data of waterbirds in some selected freshwater wetlands of Bankura and Puruliya Districts, West Bengal.

Sl. No.	English name	Scientific name	Number of birds counted in wetlands of							
			Bankura district				Puruliya district			
			JB	KB	LB	KJB	SBP	SBA	RB	IB
	A. Waterfowl									
	Order PODICIPEDIFORMES									
	Family PODICIPEDIDAE									
1.	Little Grebe, <i>Tachybaptus ruficollis</i> (R)		25	7	31	16	86	48	28	49
	Order PELECANIFORMES									
	Family PHALACROCORACIDAE									
2.	Cormorant, <i>Phalacrocorax carbo</i> (RM)		1	—	—	2	—	—	—	—
3.	Indian Shag, <i>Phalacrocorax fuscicollis</i> (RM)		1	—	—	—	—	2	—	—
4.	Little Cormorant, <i>Phalacrocorax niger</i> (RM)		21	15	18	10	12	32	2	60
5.	Darter, <i>Anhinga rufa</i> (RM)		2	1	1	—	—	1	—	1
	Order CICONIFORMES									
	Family ARDEIDAE									
6.	Grey Heron, <i>Ardea cinerea</i> (RM)		—	1	—	—	—	—	—	—
7.	Purple Heron, <i>Ardea purpurea</i> (RM)		3	4	—	2	1	5	—	6
8.	Pond Heron, <i>Ardeola grayi</i> (R)		12	6	2	5	8	3	2	5
9.	Cattle Egret, <i>Bubulcus ibis</i> (RM)		18	3	6	2	8	4	9	3
10.	Large Egret, <i>Ardea alba</i> (RM)		6	2	—	—	—	2	—	3
11.	Smaller Egret, <i>Egretta intermedia</i> (RM)		4	2	2	1	—	—	5	2
12.	Little Egret, <i>Egretta garzetta</i> (R)		3	9	5	1	5	16	—	11
13.	Chestnut Bittern, <i>Ixobrychus cinnamomeus</i> (RM)		2	1	—	1	18	3	—	—
	Family ANATIDAE									
14.	Greylag Geese, <i>Anser anser</i> (M)		—	—	—	—	—	—	—	4
15.	Pintail, <i>Anas acuta</i> (M)		—	—	—	—	89	26	—	7
16.	Common Teal, <i>Anas crecca</i> (M)		—	—	—	—	74	85	10	6
17.	Gadwall, <i>Anas strepera</i> (M)		—	—	—	—	—	11	—	6
18.	Wigeon, <i>Anas penelope</i> (M)		—	—	—	—	53	15	—	—

Table 1. Contd.

Sl. No.	English name	Scientific name	Number of birds counted in wetlands of							
			Bankura district				Puruliya district			
			JB	KB	LB	KJB	SBP	SBA	RB	IB
19.	Garganey, <i>Anas querquedula</i> (M)		-	-	-	-	10	7	-	4
20.	Common Pochard, <i>Aythya ferina</i> (M)		-	-	-	-	-	14	-	8
21.	Tufted Pochard, <i>Aythya fuligula</i> (M)		-	-	-	-	-	-	24	-
22.	Redcrested Pochard, <i>Netta rufina</i> (M)		-	-	-	-	55	322*	-	21
23.	Cotton Teal, <i>Nettapus coromandelianus</i> (R)		50	27	15	17	69	71	15	13
24.	Lesser Whistling Teal, <i>Dendrocygna javanica</i> (R)		1520*	255	-	55	2500*	3504*	67	71
25.	Comb Duck, <i>Sarkidiornis melanotos</i> (R)		-	-	-	-	47	-	-	-
	Order GRUIFORMES									
	Family RALLIDAE									
26.	Whitebreasted Waterhen, <i>Amaurornis phoenicurus</i> (R)		5	8	-	3	4	2	-	-
27.	Indian Moorhen, <i>Gallinula chloropus</i> (RM)		9	8	11	-	103	22	-	-
28.	Purple Moorhen, <i>Porphyrio porphyria</i> (R)		16	11	-	-	72	14	-	-
29.	Coot, <i>Fulica atra</i> (RM)		-	-	-	4	7	115	-	10
30.	Watercock, <i>Gallicrex cinerea</i> (R)		4	7	-	-	-	-	-	-
	Order CHARADRIIFORMES									
	Family JACANIDAE									
31.	Pheasant-tailed Jacana, <i>Hydrophasianus chirurgus</i> (R)		2	2	-	-	-	-	-	-
32.	Bronzewinged Jacana, <i>Metapidius indicus</i> (R)		75	24	-	-	24	13	6	2
	B. Waders									
	Order CHARADRIIFORMES									
	Family CHARADRIIDAE									
33.	Yellowwattled Lapwing, <i>Vanellus malabaricus</i> (R)		-	-	-	-	-	-	1	1
34.	Green Shank, <i>Tringa nebularia</i> (M)		-	-	-	-	2	12	-	4
Total number of species			20	19	9	13	24	29	12	26

Note : R = Resident, RM = Resident migrant, M = Migrant, * = Not representing total count.

JB = Jamuna bundh, KB = Krishna bandh, LB = Lal bundh, KJB = Kulajurir bundh,

SBP = Saheb bundh, Purulia, SBA = Saheb bundh, Adra, RB = Rani bundh, IB = Indra beel.

these two districts but Cotton Teal was found to breed happily in Goldighi, an urban artificial reservoir-cum-recreational park complex maintained by the Forest Department, Government of West Bengal in the heart of Rampurhat town in the adjacent district of Birbhum, West Bengal.

Table 2. Salient features of selected wetlands of Bankura and Puruliya districts, West Bengal.

Name of district	Bankura				Puruliya			
	JB	KB	LB	KJB	SBP	SBA	RB	IB
Name of wetland								
Date of observation (in 2000)	3 Feb	2 Feb	2 Feb	4 Feb	28 Jan	29 Jan	28 Jan	30 Jan
Time of observation	AM	AM	PM	PM	AM	AM	PM	PM
Nearest town/village	Bish-nupur	Bish-nupur	Bish-nupur	Banka-dah	Puru-liya	Adra	Joy-pur	Indra-bil
Locality type	Semi-urban	Rural	Semi-urban	Rural	Urban	Semi-urban	Rural	Rural
Approximate area (ha)	25	45	12	18	30	50	15	80
Vegetation cover	70%	60%	50%	40%	80%	70%	50%	60%
Wetland use	M	L	M	H	H	H	M	M
Protection	M	L	M	L	H	H	Nil	L
Poaching	Rare	Rare	Rare	Rare	Nil	Nil	Low	High

Abbreviations :

1. Name of wetland : JB = Jamuna Bundh; KB = Krishna Bundh; LB = Lal Bundh; KJB = Kulajjurir Bundh; SBP = Saheb Bundh, Puruliya; SBA = Saheb Bundh, Adra; RB = Rani Bundh; IB = Indra Beel.
2. Time of observation : AM = Morning (7.30 – 11.30 AM); PM = Afternoon (14.00 – 17.00 PM).
3. Wetland use and protection : H = High; M= Medium; L = Low.

In overall, the highest diversity of waterbirds was encountered in Saheb bundh, Adra of Puruliya district and lowest in the Lal bundh, Bishnupur of Bankura district. The richness and diversity of species appears to be associated with the size, availability of food, both macrophytes and macroinvertebrates, and safe refuge of the habitats/wetlands. Migratory waterfowls were recorded from wetlands of Puruliya district only. They were located at rural, semi-urban and urban environments having thick growth of marginal macrophytes. The occurrences of these migratory species in urban (SBP) and semi-urban (SBA) wetlands with recreational boating activities indicate their tolerance to minor man-made noises/disturbances. However, it has been noted that these wetlands of Bankura and Puruliya districts remained ornithologically unexplored (Majumdar *et al.*, 1992; NEWS, 1998) although Prakiti Samsad (1999) surveyed extensively in Southern West Bengal. Mention may be made that NEWS (1998) made an inventory of waterbirds of Saheb Bundh, Puruliya in which a total of 24 species have been listed without any count data of the species. The occurrence and abundance of resident and resident-migrant species *viz.*, Little Grebe,

Jacanas, Rails, etc., which were a common sight in rural wetlands/waterbodies of Lower Bengal even 20 years ago has drastically declined due to habitat destruction, distortion and human impact in these freshwater environments. It is, therefore, urged to the local people and the panchayats to take up appropriate conservation measures for the protection of the wetlands as well as waterfowls offering a safe refuge to both migrant and resident species so that they may merrily overwinter and/or breed undisturbed adding attraction, aesthetic value and beauty to these wetlands.

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