

## Rehabilitated winter birds of Chimdi lake (Birju Tal) Sunsari, Nepal

K. Jha<sup>1</sup> and B.R. Subba<sup>2</sup>

<sup>1</sup>Manmohan Memorial Polytechnic, Hattimuda, Sunsari, Nepal

<sup>2</sup>Birat Campus, School of Science and Technology, Biratnagar, Morang, Nepal

### Abstract

Chimdi lake (101.6 hect.) situated in Sunsari district is at its rehabilitating phase. Besides wetland birds several grass land, open land and garden birds also take shelter here. In the present survey altogether 60 species of bird were recorded in three months (October, November, December). Few birds like Common Shelduck, Purple Moorhen, Coot, Mallard, Eurasian Wigeon were seen to have rehabilitated whereas several species of bird such Pheasant-tailed Jacana, Ruddy Shelduck, Darter, Glossy Ibis, White Ibis, Opened Billed stork, White Necked stork, Sparrow Hawk, Dark Kite, Marsh Harrier, Golden Plover, Pheasant Tailed Jacana, Curlew, Little Egret which were recorded in the initial stage of the lake did not turn out this time. Except the population of Lesser Whistling Teal, the population other species of bird was not found increased well in spite of safe habitat and food availability.

**Key words:** Chimdi lake, Rehabilitation, winter birds

### Introduction

Nepal attracts about 150 winter visitors which come mainly from Northern and Central Asia. These include Ducks, Waders, Birds of prey, Gulls, Terns, Thrushes, Warblers, Pipits, Wagtails, Finches, Storks and Buntings. Koshi Tappu which is one of the hot spot for bird in Nepal is only about 60 km west-north of Chimdi Lake. At initial stage of rehabilitation of the lake a detailed study of the lake was done for fifteen months (Surana *et al.*, 2007). Heinen (1987) studied birds of Koshi Tappu and Koshi barage. Similar studies have been made (Subba 1995; Jha and Subb 2012; Limbu *et al.*, 2012; Limbu *et al.*, 2015). Now several vegetation and birds have rehabilitated naturally to some extent, plantation has also changed the physical feature of the lake. The lake has been one of the best hotspots for birds in eastern Nepal. meet the goal by conserving its beautiful fauna and flora. Local peoples have positive attitude about the conservation of important natural resource the lake is always necessary.

### Study area

Chimdi lake or locally called Birju Tal is located at Chimdi Village Development Committee (VDC) ward no. 3 and 4 Sunsari district, Nepal. It is 12 km west of Biratnagar. It lies between 087°13'24.3" E longitude and 26°29'24.3" N latitude bearing a total area approximately 101.6 hectares. Vegetation *Pistia*, *Echornia*, *Cyperus*, *Typha*, *Potamogeton*, *Ipomea*, *Mikania macrantha*, *Ceratophyllum*, *Hydrilla*, *Valennaria*, *Colocasia*, *Lemna*, *Chara*, *Runnunculus aquatilis* etc. are the vegetations observed in the lake area. Several herbs, shrubs and trees have been planted on dikes.

### Materials and Methods

Direct observation method was applied to study the winter birds in the lake area. Observation was done weekly for three months (October, November, and December) on regular basis. Binoculars (7X50, 20X50) Digital cameras, GPS were used in the field.

## Results and Discussion

In the present survey, a total 60 species of birds belonging to 21 families were recorded (Table 1). In the list of rehabilitated birds come Purple Moorhen, Common shelduck, Coot, Mallard and Eurasian Wigeon which were not recorded (Surana *et al.*, 2007). Many species of birds namely Darter, Glossy Ibis, White Ibis, Asian Openbill-Stork, White necked Stork, Lesser Adjutant, Sparrow Hawk, Dark kite, Marsh Harrier, Golden Plover, Pheasant Tailed Jacana, Curlew, Little Egret were recorded in October, November and December (Surana *et al.*, 2007) did not turn out in this present survey. However, the population of Coot, Lesser Whistling teal, Indian Gallinule, Bronze-backed Jacana and several grassland birds has increased satisfactorily on one side but the population of Cattle Egret, Large Egret, Intermediate Egret, Ashy crowned Finch Lark, White-breasted King Fisher, Eurasian Kingfisher, Pied Kingfisher, Wagtails, Buntings has decreased remarkably rapidly in compared to the past record.

Rehabilitation of any species higher fauna is a time taking process. The rehabilitated bird species will gradually go on increasing provided proper management can have done. On the basis of types of habitat and food availability the lake will be inhabited by the birds. Unless habitats of wetland birds can be identified and established the habitats required, it is impossible to expect all wetland bird species to watch in the lake. It had been expected that rehabilitation of the birds would take place soon but because of climate change, the expected result could not be achieved, on one hand, population of every bird species has been decreasing every year, throughout the world on the other hand. Of course, there are some technical problems which seem to have been challenges in rehabilitation of the lake. Gradual improvement in the public awareness towards the importance of lake and lake diversity conservation sustainably is hopefully expected.

**Table 1.** Rehabilitated winter birds of Chimdi lake.

Sn	Common Name	Scientific Name	Family	
1	Little Grebe	<i>Podiceps ruficollis</i>	Podicipedidae	
2	Little Cormorant	<i>Phalacrocorax niger</i>	Phalacrocoracidae	
3	Great Cormorant	<i>Phalacrocorax carbo</i>		
4	Cattle Egret	<i>Bubulcus ibis</i>		
5	Indian Pond Heron	<i>Ardeola grayii</i>	Ardeidae	
6	Intermediate Egret	<i>Mesophox intermedia</i>		
7	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>		
8	Purple Heron	<i>Ardea purpurae</i>		
9	Grey Heron	<i>Ardea cinerea</i>		
10	Large Egret	<i>Egretta alba</i>		
11	Little Egret	<i>Egretta garzetta</i>	Threskiornithidae	
12	Black Ibis	<i>Pseudibis papillosa</i>		
13	Lesser wistling- teal	<i>Dendrocygna javanica</i>		
14	Common Shelduck	<i>Tadorna tadorna</i>		
15	Garganey	<i>Anas querquedula</i>		
16	Common Teal	<i>Anas crecca</i>		Anatidae
17	Mallard	<i>Anas platyrhynchos</i>		
18	Eurasian wigeon	<i>Anas penelope</i>		
19	Common pochard	<i>Aythya ferina</i>		
20	Cotton teal	<i>Nettapus coromandelianus</i>	Rallidae	
21	Indian Gallinule	<i>Gallinula chloropus</i>		
22	Common moorhen	<i>Gallinula chloropus</i>	Charadriidae	
23	Purple moorhen	<i>Porphyrio porphyrio</i>		
24	Coot	<i>Fulica atra</i>		
25	Red-wattled Lapwing	<i>Vanellus indicus</i>		
26	Greater Painted-snipe	<i>Rostratula benghalensis</i>		

27	Common Sandpiper	<i>Tringa hypoleucos</i>	Jacaniidae
28	Yellow Wattled Lapwing	<i>Vanellus malaboricus</i>	
29	Bronze winged Jacana	<i>Metopidius indicus</i>	Columbidae
30	Spotted Dove	<i>Streptopelia chinensis</i>	
31	Indian Ring Dove	<i>Streptopelia decaoto</i>	
32	Red-Collared Dove	<i>Streptopelia tranquebarica</i>	Cuculidae
33	Pigeon	<i>Columba livia</i>	
34	Asian Koel	<i>Eudynamys scolopacea</i>	Centropodidae
35	Indian Cuckoo	<i>Cuculus micropterus</i>	Alcedinidae
36	Great Coucal	<i>Centropus sinensis</i>	
37	White- throated Kingfisher	<i>Halcyon smyrnensis</i>	Alaudidae
38	Pied kingfisher	<i>Ceryle rudis</i>	Laniidae
39	Rufous-winged Bushlark	<i>Mirafra assamica</i>	
40	Brown Shrike	<i>Lanius cristatus</i>	Corvidae
41	House Crow	<i>Corvus splendens</i>	
42	Rufous Treepie	<i>Dendrocitta vagabunda</i>	
43	Jungle Crow	<i>Corvus macrorhynchos</i>	Sturnidae
44	Black Drongo	<i>Dicrurus macrocerus</i>	
45	Common Myna	<i>Acridotheres tristis</i>	
46	Pied Myna	<i>Sturnus contra</i>	
47	Bank Myna	<i>Acridotheres ginginianus</i>	Pycnonotidae
48	Grey- headed Myna	<i>Sturnus malabaricus</i>	
49	Red -vented Bulbul	<i>Pycnonotus cafer</i>	Sylviidae
50	Red- whiskered Bulbul	<i>Pycnonotus jacosus</i>	
51	Dusky Warbler	<i>Phylloscopus fuscatus</i>	
52	Common Tailor bird	<i>Orthotomus sutorius</i>	Muscicapidae
53	Jungle Babbler	<i>Turdoides striatus</i>	
54	Indian Robin	<i>Saxicoloides fulicata</i>	
55	Black Redstart	<i>Phoenicurus ochuros</i>	Passeridae
56	Grey- headed Wagtail	<i>Motacilla alba ducumensis</i>	
57	House Sparrow	<i>Passer domesticus</i>	
58	Paddyfield Pipit	<i>Anthus rufulus</i>	Psittacidae
59	Scaly-breasted Munia	<i>Lonchura punctulata</i>	
60	Rose-ringed Parakeet	<i>Psittacula krameri</i>	

### Acknowledgement

Authors would like to thank sincerely to the care taker organization of Chimdi lake for providing us with their data and information.

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