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ORIGINAL ARTICLE

MIGRATORY STATUS OF WINTER VISITOR WATER FOWLS OF WETLANDS OF THE CENTRAL INDIA

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Abstract:

Migration is an essential phenomenon for breeding, feeding and nesting in birds, it is also important to avoid freezing winter of the ice covered parts of the world. In winter from November onward migratory birds start visiting ponds, lakes, rivers and dams of the central India. Three water bodies are monitored for last two years 2010-11 and 2011-12 and Migratory status of winter visitors of these ponds were recorded by weekly visits and by doing mid-winter waterfowl census of these important perennial dams of the central India. These wetlands shrinking day by day because of decrease annual rainfall and polluted due to the anthropogenic activities hence loosing its richness. The study of winter migratory avifauna of these different wetlands gives us idea of habitat related distribution of birds in different ecosystems and it helps us to draw outline for future conservational strategies.

KEY WORDS:

Mid-Winter Waterfowl Census, Waterfowl, Perennial etc.

INTRODUCTION

Central India is the biodiversity rich part of the world, it is home of number of species of the birds of varieties of colours, shapes and sizes, besides it provides very good habitat for winter visitor guests. These birds visiting every year and are very important to maintain dynamics of the pray predator system of the water reserviours. But increasing anthropogenic activities, increasing load of irrigation and irregular raining results in to the shrinkage of these wetlands and hence it is necessary to keep watch on local resident and migratory birds of these important habitats and monitor them for the sustainable wetland management. Uttangi (2001) has studied the conservation and management for the waterfowls of minor irrigation tanks and their importance as stopover sites in Dharwad district. Shanbhag et al. (2001) reported the impact of Konkan Railway Project on the avifauna of Carambolim lake in Goa. Inac et al. (2008) studied the bird species of Kumasir lake, Turkey and the role of environmental ethics on wet land management.

Bird migration is important phenomenon between breeding and nesting to feeding and resting grounds. To avoid great winter of the west, water birds from different parts migrate to the Indian sub-continent and especially to the water bodies of central India, varieties of colourful water birds are seen on different water reservoirs and some such dams were studied by Gajendrasingh Pachlore & Mamata Chandrakar in 2010.

STUDY AREA

Three dams of different characters from Yavatmal district of Maharashtra were chosen to study the migratory status of these winter visitors.

Saikheda is largest water reservoir of Pandharkawada taluka of; it is a source of water supply for

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irrigation, drinking and other domestic purposes. It is also used for fish cultivation and for commercial exploitation of fishes. It was built in 1900 and is very much saucer shape. It is surrounded by agricultural land, small islets of aquatic weeds and water lilies are seen everywhere in this dam.

Wai is a newly built water body of Pandharkawada taluka mainly used for irrigation purposes it is too shallow towards its periphery resulting in production of muddy marshes towards the margin. It is surrounded by agricultural lands with adjacent forestlands. No aquatic weeds and lilies are found in submerging area of the dam.

Khateshwar is a small and old dam around 20 km. away from Yavatmal. It is situated besides a holy place and is a recreation centre for pilgrims. Flowers, used garlands, cooked and uncooked food articles are seen on its bank round the year. Some of its parts are surrounded by forest and some by agriculture. It is cup shaped and occupied by aquatic floating, submerged weeds like water lilies, lotus in large population.

Continuous and meticulous monitoring of these dams were done with special reference to mid-winter waterfowl census of all selected dams for the study period.

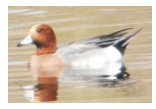
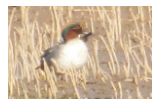
MATERIALS AND METHODS

Diversity and density of winter immigrants were recorded by weekly visit for two year to every dam and an average of 4 weeks was accounted for a month. Every pond was demarcated into 2 sites, one is in east and other is in west for getting proper light for observation in morning and evening hours. Waterfowl population was enumerated by point count and direct counting methods (Colin et al., 1992). Binoculars and cameras were used for bird watching and to photograph them. Waterfowl population was observed and documented every week in the morning and evening hours. The relative abundance of birds was estimated and their monthly fluctuation was recorded and is classified on the basis of "The Book of Indian birds" (Ali, 1996).

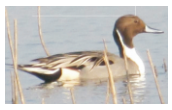
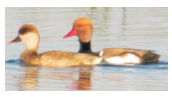
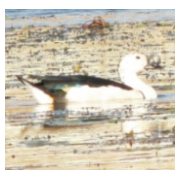
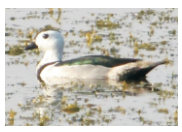
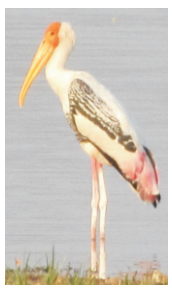
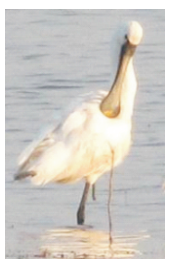
OBSERVATION AND DISCUSSION

Variation in the migratory avifauna and their relative abundance were recorded and it is shown in the following table with photographs.

Migratory Birds studied from three dams of the central India

Common name	Scientific name	Photograph	Dam I	DamII	Dam III
Rudy Shelduck	*Tadorna ferruginea*		++	+	-
Bar-Headed Goose	*Anser indicus*		_	_	+
Gadwal	*Anas strepera*		_	_	++
Eurasian Wigeon	*Anas penelope*		+	-	++
Common teal	*Anas crecca*		_	+	_
Garganey	*Anas querquedula*		+	-	++

MIGRATORY STATUS OF WINTER VISITOR WATER FOWLS OF .....

Northern pintail	*Anas acuta*		+++	++	+
Northern shoveler	*Anas clypeata*		+	-	++
Red-crested pochard	*Rhodonessa rufina*		+++	+	+++
Common pochard	*Aythya ferina*		_	+	_
Tufted duck	*Aythya fuligula*		_	+	_
Cotton pygmy-goose	*Nettapus coromandelianus*		++	+	+++
Painted stork	*Mycteria leucocephala*		_	+	_
Eurasian spoonbill	*Platelea leucorodia*		_	+	_

Dam I = Saikheda, Dam II = Wai, Dam III = Khateshwar

+++: Most abundant, ++: Abundant, +: Less abundant, : Rare

Most of the winter immigrants are from family Anatidae and 15 species from same family were recorded from studied dams. Migration begins with the arrival of Rudy shelduck in the month of september its population is recorded highest at Saikheda, lesser at wai and are not seen at khateshwar. Surprisingly this year (2011-12) very few Rudy shelducks are arrived in the month of December. Bar headed goose arrives in late months of winter in Februar and these are only recorded from Wai Gadwals in good numbers are seen at Khateshwar less at Saikheda and not seen at Wai. Eurasian wigeon are recorded only at Khateshwar, Common teal at Wai, Gargany at Khateshwar and Saikheda. Good numbers of Northern pintails, Red crested pochards are recorded from all studied dams.Saikheda was found to be the good habitat for these migratory ducks followed by Khateshwar and Wai. During the period of entire survey, the pair of Black-headed Gull Larus ribdibundus was sighted only once at Saikheda dam last year during the winter of 2010-

11.Every year a flock of tufted duck was recorded for short time, for 4-5 days. Gull recorded in 2010 and tufted duck every year use this place for short stopover in their migratory rout.

Some species like are threatened and comes under the Schedule of the threatened taxa, if these species lose their winter home it affects overall feeding as well as breeding behaviour, therefore it is necessary to maintain its record and monitor them. Some species like Gull recorded in 2010 and tufted duck every year use this place for short stopover in their migratory rout and use these habitats as important stopover sites. Therefore it is necessary to draw some conservational management plans for these wetlands as IBA.

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