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A SURVEY REPORT ON THE HERONRIES: DISTRIBUTION AND CONSERVATION OF THE HABITATS IN GONDIA DISTRICT MS

[1] Kishor Bhonde, [2] Kuldeep Singh Bachhil, [3] Sudhir Bhandarkar, [4] Gopal Paliwal, [5] Pravin Randive, [6] Shirshir Kulkarni, [7] Satish Kantode, [8] Amit Deshpande, [9] Atish Zalke

ARANYAYATRI WILDLIFE FOUNDATION (AWF) LAKHNI DIST. BHANDARA

ABSTRACT

The present preliminary survey of nesting birds was done in a nesting period and restricted only for Arjuni/Morgaon Taluka of District Gondia. The region is very well known for its rice crops and surrounding land is forested. The members and volunteers of AWF took initiatives as an awareness campaign by motivating the villagers to conserve the heronries.

The records were maintained as unique Nest ID, name of site, no of heronries in the site, name of birds, no. of birds and name of tree. The problem oriented suggestions, remediation and contemplation was also practically produced to the villagers. In 23 villages, 106 nesting sites, total of 904 birds with their corresponding nest on various kinds of indigenous and exotic tree species were recorded.

KEY WORDS:

Nesting site, Heronries, Distribution, Conservation, Protection

INTRODUCTION:

A heronry is a breeding ground for herons, Egrets, Storks etc. The breeding grounds sometimes found near the small islands in ponds, lakes, reservoirs or any annual water body. The birds like cormorants, storks, egrets and variety of other birds also found in breeding grounds and collectively referred as a heronry. Very few reports and some scattered literature are available on survey of heronries occur in Maharashtra viz Mistri and Pejavar (2013). The present survey was done in a nesting period and restricted only for Arjuni/Morgaon Taluka of District Gondia. The region is very well known for its rice crops and surrounding land is forested. The Bagh-Itiadoh irrigation Dam, Gothangaon is situated 18 km from Arjuni. Thousands of hectors of land is under irrigation by this dam. Total area in Arjuni/Mor taluka under paddy cultivation is 25,218 hectares. Navegaon National Park or Navegaon-Nagzira Tiger Reserve (NNTR) is around 12 km from Arjuni. Much work available on the biodiversity of birds and from this area (Bhandarkar and Chavan (2008), Bhandarkar and Paliwal (2014), Paliwal and Bhandarkar (2014) but there has been no comprehensive work on the

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distribution of heronries in Maharashtra especially from the Gondia district. The main aim of this study is to understand their status and distribution regarding Environmental Impact Assessment and steps to fill the gap in the ornithological study of the State. This is an independent study organized by a Govt. registered NGO, Aranyayatri wildlife foundation (AWF) for the purpose of maintaining of baseline data for further analysis. In the primary observation the heronries are under threat due to their habitat destruction by various causes. The members and volunteers of AWF took initiatives as an awareness campaign by motivating the villagers to conserve the heronries by providing pamphlets and personal communications.

MATERIAL AND METHOD:

The survey was started from year 2015 in monsoon season to the post winter of year 2015. In the monsoon period the birds synchronize their breeding periods to maximize their young ones survival, when there is abundant of food resources were available. Colonial nesting water birds are particularly easy to census during the breeding season, when that season is reasonably well defined (Sutherland, 2006). The egrets, herons and nesting trees were identified by standard literature and field guides of Dr. Salim Ali (2012) Bikram Grewal et al., (2016). The sites were observed with the people's participation by regular and repeated visit to every village of the Taluka. The records were maintained like unique Nest ID, name of site, no of heronries in the site, name of birds, no. of birds and name of tree. The photographed were taken at the time of counting. The awareness program was also done by the volunteers to conserve heronries by distributing the pamphlets and banner and personal communications. The problem oriented suggestions; remediation and contemplations were also practically produced to the villagers.

RESULT AND DISCUSSION:

The present survey is done in 23 villages in which 106 heronries, total of 904 birds (Table-1) with their corresponding nest on various kinds of indigenous and exotic tree species also like Ficus religiosa, Mangifera indica, Tamarindus indica, Ficus benghalensis, Ziziphus mauritiana, Syzygium cumini, Pithecellobium dulce (Chichbilai), Azadirachta indica, Phyllostachys edulis (Bambu), Delonix regia were recorded. The bird of nesting of Cattle Egret (Bubulcus ibis) is predominant with 568 numbers from 42 nesting sites, Median egret (Ardea intermedia) with 81 numbers from 07 nesting sites, Open bill stork (Anastomus oscitans) with 05 numbers from only 01 nesing site, Little cormorant (Microcarbo niger) with 68 form the 08 nesting sites and Pond heron (Ardeola grayii) with 176 in numbers from the 15 nesting sites of the 23 villages. In the present investigation, among the record the tree like Tamarindus indica remain dominant in all villages. Total of 31 numbers of Tamarindus trees were recorded along with their nest over it and surprisingly the number of birds in all the observation are also superior. The Cattle Egret (Bubulcus ibis) was remaining dominant with 473 in

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number from all the Tamarindus trees. While Little cormorant (Microcarbo niger) with 46, Pond heron (Ardeola grayii) with 60 and Median egret (Ardea intermedia) with 43 in number from the Tamarindus tree. On the 03 Ficus bengalensis tree from the surveyonly14 cattle egret (Bubulcus ibis) and 18 Pond heron (Ardeola grayii) were recorded. There were only 02 trees of Ziziphus mauritiana recorded with only 02 cattle egret (Bubulcus ibis) and 01 Pond heron (Ardeola grayii) were noticed. The tree like Delonix regia have only two trees noticed during the survey in which only11 pond heron (Ardeola grayii) found along with the nest. On Pithecellobium dulce (Chichbilai) 15 cattle egret (Bubulcus ibis) and 12 Median egrets (Ardea intermedia) recorded with their nest. In the total survey only 01 Jambhul tree (Syzygium cumini) with the nesting of cattle egret was noticed. 01 Kadunimb tree (Azadirachta indica) with only a nest of Pond heron (Ardeola grayii) with only single bird is noticed. In the present survey 02 Bamboo plants with 44 Pond heron (Ardeola grayii) birds were recorded. The survey and close observations reveals that the habitations of the nesting and nesting birds were in close proximity near human habitation. The record also reveals higher the number of Tamarindus indica trees were present in approximately all the villages with large number of birds were nested. The villagers always found to be irritated with the nuisance odor of the droppings by birds. On discussions, the villages are positive towards the care but they found frustrated with bad odor by birds droppings and therefore they were regularly cut down the apical branches of trees from the prevention of congregations of the birds for nesting. Stealing of birds' egg and bursting of crackles found near host trees was common phenomenon in the villages to disincline the nesting. AWF volunteers provide some ideas to demolish the odor of bird's droppings. Some remediation and contemplations were also practically produced to the villagers. It is suggested that the conservation and protection of the Tamarind's and other indigenous trees for nesting and habitations of the birds is important and very essential. Regular awareness campaigns, design of conservation management action plan should be recommended for the protection of these heronries to maintain the ecosystem and healthy environment proper.

Table-1: Birds of nesting with details of nesting and trees

Sr. No.	Nesting Sites	No. of Heronry	Gps Id	Birds Of Nesting		No. of Nests	Name Of Tree
1	Jambhali	1	205426N, 800857E	Cattle Egret	10		Ficus religiosa
				Median Egret	16		
				Open Bill Stork	5	31	
		2	205426N	Cattle Egret	3	3	Mangifera indica
			800857E				
		3	205426N	Cattle Egret	15	15	Tamarindus indica
			800857E				
2	Aelodi	1	205506N	Cattle Egret	18	30	Tamarindus indica
			800900E	Cormorant	12		
		2	205509N	Cattle Egret	10	10	Tamarindus indica
			800859E				
		3	205509N	Cattle Egret	5	5	Ficus benghalensis
			800854E				
3	Rampuri	1	205552N	Cattle Egret	10	20	Tamarindus indica
			800838E	Cormorant	10		

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4	Zashinagar	1	205352N 801251E	Cattle Egret	55	55	Tamarindus indica
		2	205358N 801304E	Cattle Egret	15	15	Tamarindus indica
		3	205358N 801304E	Cattle Egret	5	5	Tamarindus indica
		4	205358N 801304E	Cattle Egret	12	12	Tamarindus indica
5	Dhamditola	1	205431N 801459E	Cattle Egret	17	17	Tamarindus indica
6	Ranzitola	1	205320N 800807E	Cattle Egret	10	10	Tamarindus indica
7	Kanholi	1	205302N 080816E	Cattle Egret	15	32	Tamarindus indica
				Pond Heron	10		
				Cormorant	7		
		2	205258N 080816E	Cattle Egret	12	22	Tamarindus indica
				Cormorant	10		
8	Kanholi Sonar	1	205235N 080805E	Cattle Egret	10	10	Tamarindus indica
9	Jabbarkheda	1	205241N 800907E	Cattel Egret	7	18	Tamarindus indica
				Cormorant	3		
				Mediun Egret	8		
		2	205245N 800905E	Cattel Egret	15	24	Tamarindus indica
				Cormorant	4		
				Mediun Egret	5		
		3	205247N 800904E	Cattel Egret	2	2	Tamarindus indica
10	Yerandi Darre	1	205204N 801016E	Cattel Egret	2	2	Tamarindus indica
		2	205257N 801014E	Cattel Egret	27	27	Tamarindus indica
		2	205157N 801014E	Cattel Egret	2	2	Ziziphus mauritiana
11	Dhabepawani	1	205348N 800911E	Pond Heron	1	1	Mangifera indica
		2	205348N 800911E	Cattel Egret	10	30	Mangifera indica
				Cormorant	10		
				Mediun Egret	10		
12	Bondgaon Devi	1	205324N 795931E	Pond Heron	32	59	Ficus religiosa
				Cattle Egret	15		
				Cormorant	12		
		2	205324N 795932E	Pond Heron	3	3	Delonix regia (Gulmohar)
13	Chhanna	1	205420N 800023E	Cattel Egret	14	22	Tamarindus indica
				Pond Heron	8		
14	Bakti	1	205442N 800049E	Cattel Egret	15	27	Pithecellobium dulce (Chichbilai)
				Mediun Egret	12		
15	Bid/Bhursi	1	205441n 800241E	Cattle Egret	8	20	Tamarindus indica
				Pond Heron	12		
		2		Cattle Egret	3	3	Syzygium cumini (Jambhul)

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16	Mungali	1	205428N 800418E	Pond Heron	1	1	Ziziphus mauritiana
		2	205428N 800418E	Pond Heron	1	1	Azadirachta indica
		3	205424N 800410E	Cattle Egret	5	5	Tamarindus indica
		4	205424N 800407E	Cattle Egret	7	7	Tamarindus indica
17	Bhivakhidaki	1	205644N 800315E	Cattle Egret	11	30	Tamarindus indica
				Pond Heron	19		
18	Siregaon Bandh	1	205654N 800053E	Cattle Egret	5	23	Ficus benghalensis
				Pond Heron	18		
		2	205654N 800052E	Pond Heron	8	8	Delonix regia
20	Siregaon Tola	1	205624N 800113E	Pond Heron	12	12	Phyllostachys edulis (Bambu)
21	Somalpur	1	205538N 800044E	Cattle Egret	52	71	Tamarindus indica
				Pond Heron	19		
		2	205538N 800044E	Cattle Egret	38	38	Tamarindus indica
		3	205538N 800044E	Pond Heron	20	20	Phyllostachys edulis
		4	205538N 800044E	Cattle Egret	10	10	Tamarindus indica
		5	205538N 800044E	Cattle Egret	4	4	Tamarindus indica
		6	205538N 800044E	Cattle Egret	18	18	Tamarindus indica
		7	205538N 800044E	Cattle Egret	26	26	Tamarindus indica
		8	205539N 800043E	Pond Heron	12	12	Phyllostachys edulis
22	Yerandi	1	205516N 795927E	Cattle Egret	4	4	Ficus benghalensis
23	Silezari	1	205528N 795822E	Cattle Egret	26	56	Tamarindus indica
				Pond Heron	12		
				Mediun Egret	18		
		2	205528N 795821E	Cattle Egret	14	26	Tamarindus indica
				Mediun Egret	12		

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