# Ornithofauna of Kuldiha in Salboni Block of Paschim Medinipur District in West Bengal

<sup>1</sup>Atmaja Avirupa Das and <sup>2</sup>Debabrata Das

Members, Indian Bird Conservation Network, Mumbai, India <sup>1</sup> VSN (HS), Midnapore, W.B., <sup>2</sup> Ecology Lab., Govt. Gen. Degree College, Lalgarh, Jhargram, W.B.

Abstract- In this study concise information on avifauna of Kuldiha under Salboni Community Development Block of Midnapore, Paschim Medinipur has been placed. The information reflects on some migratory birds, their breeding behaviour and ecological amplitude during post monsoon. Species found there are Open Bill storks, Black headed ibis, Black ibis which are migratory while other birds like night heron, little cormorants, and intermediate egret and pond herons are local that exists side by side without any ill behaviour. Black headed ibis and night herons are near threatened category and breed here though this is a community based habitat which is important for heronry. The vegetation of the site and impact of the birds have been made in the present communication with potential threat that might be a key role to sustain the natural environment in near future.

*Keywords*- Kuldiha-Salboni, Midnapore, migratory birds, local birds, breeding behaviour, management.

#### I. INTRODUCTION

Avifauna is found in most of the parts of the world as permanent or temporary basis. But in some sites weather are too extreme that sustain frequent visitors for varied purpose. These are such which are freezing cold to melting hot weather where avifauna cannot survive there. So, they need to visit favourable places where they can do easily roosting, nesting and breeding. The available food and nesting materials make them convenient to make settlement in such habitat where temporal availability of such materials is found. Therefore, to make them adjust with such environment, habitat is important. Some sites having temporal availability of materials required for their settlement and that's why they stay there for few months when the actual habitat is unfavourable. Remembering the science background on such behaviour of birds and habitat conservation are essential for ornithofauna study.

Habitat conservation is an important thing in conservation of birds because of species need habitat that is full of resources. So, depleted resource and threatened habitats losing bonds between living and non-living components of the site too. Therefore ecological parameters and species richness gradually fall that causing loss of ecosystem bonding there. The grass land are being dumped with garbage, ponds and water bodies, wetlands and low lying lands are getting dirty and filled by full of garbage day by day, trees and forests are being cut, birds are being hunted and poached for their body parts etc. This is leading to extinction of birds gradually but slowly. The overall impact forces on food chain and this will finally lead to an unbalance process in nature. Extinction of species, natural disasters and cope for extinction of species of all kinds might be the next step process which could alter the complete environment of the globe. So, for continuation of life on earth human beings the most intelligent creature on earth should play its key role by conserving birds and trees. Remembering the theme in mind the present study have been conducted since 2016 till date to locate the bird behaviour in a community based ecosystem in Kulkdiha village of Paschim Medinipur district which is nutshell as 'Pakhi village" as the term 'pakhi' in Bengali language is Bird. Birds are very important because they help us in various ways and are a centre of attraction to us (Das and Das, 2018). To make the village eco-friendly and make it complete in all aspect the present study has been made.

#### **II. STUDY AREA**

Study area of Kuldiha is fall under Kuldiha of Salboni Community block in Paschim Medinipur district of West Bengal. The village is situated on the metallic road Midnapore-Bhadutala to Lalgarh (Das and Das, 2017). The nearest point is Koima which is famous for Govt. General Degree College Salboni, Midnapore. It is a community based bird area but not yet been recognized as important bird area (IBA) as per the guideline of Birdlife International. One dominated pond and many small water bodies, canals and agricultural land fall under the site. The site is dominated by many big trees like Tamarindus, Adina, Schleichera, Albizzia, Samanea, Ficus religiosa, Ficus benghalensis, Bambusa bamboos, B. Balcua, B. Tulda, Terminalia crenulata, Borassus flabellifer, Phoenix sylvestris, Madhuca indica, Morus indica, Ficus glomerata, Streblus asper, Anthocephalous cadamab, Tectona grandis, Mangifera indica, Artocarpus heterophylla, Azadirachta indica, Ziziphus jujuba, Trema orientalis, Dalbergia sissoo, Psidium guajava, Cocos nucifera, Syzygium

cumuni etc. The entire village and around the cultivable land mass was taken in to consideration during the study.

# **III. MATERIALS AND METHODS**

Frequent field visit were done with the help of some knowledgeable persons. Discussion about the bird and bird behaviour was conducted in the village premises with some persons headed by Sri Pranab Mahato of the same village. Cultivated land was examined for food of birds available in monsoon, post monsoon and in winter. Vegetation structure, availability of resource like water and small herbs and shrubs including nesting sites have been studied well round the year. Temperature, humidity and rainfall parameters were recorded. Round the year, migratory bird behaviour and availability of species in 1km radius was recorded. Binocular, DSLR cameras, sound recorder, temperature meter, lux meter, GPS and necessary items were taken for study. Seminar and training workshop have been conducted at Lalgarh Govt. Lalgarh, Jhargram and in Seva Bharati College, Mahavidyalaya, Kapgari, Jhargram to popularize birds and birding at Kuldiha. Indigenous and winter visitors including migratory special king have been recorded in note book and data sheet was prepared accordingly as per IBCN format. Literatures studied for the entire work are mentioned in references 4-21.

## **IV. RESULT AND DISCUSSION**

The study site shows big trees and heavy bush managed by local people which is beneficial to the roosting and nesting site of many birds mainly near threatened species like black headed ibis and night heron. Not only that Asian Open Bill Stork and egrets are the social elements on such heronry. The coming period of the Open Bill storks is the first week of May each year though it differs depending upon the early monsoon. They prefer Eucalyptus twigs to make nests during monsoon to post-monsoon which is available in local forest. Late comers are black headed ibis including night herons. Some birds like Open Bill Storks and Night heron stay here due to some cause which need study soon. Late October to early November, most of the Open Bill storks move to their own habitat. Black headed ibis last for more time though they are late comers. In the month of November even up to December black headed ibis found here with less number. This perhaps need more time to make a complete trial of flying. Top canopy of big tamarind trees and some other deciduous trees are the habitat for nesting. Like tamarind other tree species like Mitragyna parviflora, Terminalia arjuma etc. are the preferred habitats of black headed ibis and Asian Open bills. In the same time Open bill stork choose lower canopy of the same tree species but their nesting habitats are somehow

herons, Long tail shrikes, Fruit bats, Parakeets, Common myna, Bank myna, Jungle myna, Asian Pied Starling, Red vented Bulbul, Indian rollers, White breasted kingfishers, Common kingfishers, Stork-billed kingfishers, Jungle babbler, Sparrows and different types of warblers etc. are variable. These birds co-exist here with great co-operations. At the end of the November and first week of December, mostly all bird of migratory kind leave the place and the same ecological niche is filled with huge bat species with a few numbers of egrets and pond herons. Pond and low lying land becomes waterless and the feed of the birds exhausted. Spraying of insecticides and pesticides in winter makes the environment polluted and that may be a cause for the birds to leave the station.

different. Only a few black ibis were recorded frequently.

Little egrets, Intermediate Egrets, Large egrets, Bitterns, Pond

#### V. CONCLUSION

Bird and the common creatures is the centre of attraction of many people over the globe. Depletion of resource and habitat loss is a threat to all creatures because resources are limited and structural ambiguity is restricted though the use pattern is varied (Das, 2016). So, it is urgent issue to keep everything managed to save us. Here, the village people of Kuldiha are very sensitive regarding bird conservation including bats and others. They provide facilities during study and demarcated the site as community based protection area. They started naming of some birds by their own. These are like 'Joutha Bahini' for black headed ibis, 'backtcha' for night heron and so on. Scientific management is very essential to conserve the birds and bats in Kuldiha. Therefore, research and extension activities including training programme may be included through forest department or from Community development blocks or from different conservation agencies. It is very much essential to run home stay or develop ecotourism in connection with Kuldiha village for better management and better conservation in near future. Student's participation and birding may be included through people's participation in villages and in schools to make it convenient. Area may be free from strong insecticides and pesticides so that birds could be free and safe during nesting, resting and roosting. Migratory birds will come more that may be an extra to develop ecotourism and generation of income for sustenance of life.

Photo Plates

## ISSN [ONLINE]: 2395-1052



Fig. 1 Intermediate egret showing normal plumage on Tamarind tree at Kuldiha



Fig. 2 Night heron roosting during day time at Kuldiha, Paschim Medinipur, West Bengal



Fig. 3 Black headed ibis during nesting at Kuldiha in 2018, a threatened bird



Fig. 4 Open bill storks at the nests during post monsoon on Anthocephalus cadamba tree



Fig. 5 Teak vegetation supports bird for roosting and nesting at Kuldiha during post monsoon

## ACKNOWLEDGEMENTS

First author acknowledges her father who introduced her to the community of Bird studies in India. Thanks go to Dr. Pampi Ghosh, Assistant Professor of Botany, Seva Bharati Mahavidyalaya, Kapgari, Jhargram, West Bengal who encourages us every time. First author acknowledges Mrinal Kanti Satpathi, an retired officer of BDO office for helping her since her child hood about birds and birding. All her friends of BCO course (2017-2018) of CEC, BNHS, Mumbai are well acknowledged for their rigorous identification and help as and when required. We, specially thank to our IBA programme manager Dr. Raju Kasambe, IBCN, Mumbai, India, for his help to study birds. We also acknowledge to Sir Asish Babre, Sir Jat Mohmmad, Sir Sankara Narayanan, Heta Karia madam, Ravi Naidu sir, Sir N. K. Dudhe, Sir Omkar Joshi, Bhagyashree Grampurohit madam, Priyadarshini Supekar madam for their inspiration about research on avifauna study in India even to run Common Bird Monitoring Programme (CBMP) in India. Last but not least we thank all the BCO members for their co-operation during entire programme in India.

## REFERENCES

- Das, Debabrata. 2016. Ecological studies on Jhitka forest under Medinipur forest Division, IJSART, 2(12): 296-302.
- [2] Das, A. A and Das, Debabrata. 2018. Birds of our Garden premises in West Midnapore district of West Bengal, India, IJSART, 4(3): 269-277.
- [3] Das, Debabrata and Das, A.A.2017. New Destination to Kuldiha-an interesting Bird watching spot in West Bengal, India, IJSART, 3(2): 12-17.
- [4] Das, A.A and Ghosh, P. 2018. Study of Avifauna: A General Guideline to all, Manual for Training cum Workshop, Three-Day National Level Training cum

Workshop on 'Field Visit, Data Collection, Identification and Documentation of Bio-resource', at Government General Degree College Lalgarh, Jhargra, Organized by Department of Botany, Lalgarh Govt. College, Jhargram, pp. 23-27.

- [5] Ali, S. 1997. The book of Indian Birds, 12th Revised Enlarged Centenary Edition, Bombay Natural History Society, Oxford University Press, India.
- [6] Inskipp, C; Richard, G and Inskipp, T. 2011. Birds of the Indian Sub-continent (Paper Back), Oxfor University Press, India.
- [7] Das, A.A and Das, Debabrata. 2016. Preliminary Studies on Common birds of West Bengal with special reference to Vegetation spectrum in India, IOSR-JESTFT, 10(11): 12-34.
- [8] Gripson, S. 2011. Restoration Ecology, Jones and Bartlett Learning, USA., 387.
- [9] Das, Debabrata; Das, A.A and Ghosh, P. 2018. Ecological study on Kumarakom Bird Sanctuary of Kerala in India, IJIRD, December Volume (In Press).
- [10] Urfi, AJ; Sen, M; Kalam, A; Meganathan, T. 2005. Counting birds in India: Methodologies and trends. Curr. Sci. 89(12): 1997-2003, 2005.
- [11] Balakrishnan, M; Thomas, S.K. 2004. Conserving the breeding habitat of the near threatened Oriental white ibis Threskiornis melanocephalus. Curr. Sci. 87(9): 1190-1192.
- [12] Narayanan, S.P; Manoj, P and Sreekumar, B. 2007. Avifauna of Kumarakom Heronry, Kottayam, Kerala, Madras Naturalists' Society, Chennai, pp 1-14, 2007.
- [13] Pittie, A. 2004. Editorial, Newsletter for Ornithologists 1 (1&2): 1.
- [14] Anonymous. 2007. www.moef.nic.in/soev/Kerala-So E2007-VI.pdf, pp.92 (WI, 2007), Report on Kerala.
- [15] Islam, Z and Rahmani, A.R (Eds.) 2004. Important bird areas in India: Priorities for Conservation, IBCN-Bombay Natural History Society, 2004.
- [16] Anonymous. 2001. Threatened Birds of Asia, BirdLife International, Cambridge, U.K.
- [17] Grewal, B; Harvey, B and Pfister, O. 2002. A Photographic guide to Birds of India and the Indian Subcontinent, Periplus Edition, (H.K.) Ltd., Singapore.
- [18] Narayanan, SP and and Vijayan, L. 2007. Status of the colonial breeding water birds in Kumarakom heronry of Kerala, South India, Podoces, 2(1): 22-29.
- [19] Das, A. A. 2018. Birds are good biodiversity indicators, IJIRD (Additional Vol.), 6 (2): 41-43.
- [20] Dwivedi, R; Krishna, V; Singh, S.K and Kumar, A. A. 2018. Village heronry of Black-headed Ibis Threskiornis melanocephalus in Haryana: Threats and conservation needs, Adv. Biores., 9(2): 223-226.

[21] Narayanan, S P and Vijayan, L. 2008. Major Threats and needs for the conservation of Kumarakom Heronry of Kerala, India.