

Preliminary Studies on Common Birds of West Bengal with Special Reference to Vegetation Spectrum, India

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Abstract: Birds are attractive and interesting creature of the globe due to their behaviour and importance in nature. Some are key stone species as per the literature. In this communication some common birds have been studied with nearby vegetation available in surrounding localities. They have sound environmental impact. The observation revealed 32 bird species from different Districts of West Bengal, India. It broadly emphasised on the habitats along with the abundance as per the common ecological study. Duars area of Alipurduar, Jalpaiguri District; hills of Darjeeling District, coastal belt of Purba Medinipur District along with the Junglemahal area of Paschim Medinipur, Purulia and Bankura included for their distribution study. Feeding, nesting and roosting are the phases of their study. Herbs, shrubs and tree species are important for birds which have common impact for their interactions as they help during nesting and roosting. Hope that, this work will help more to the bird watcher and nature lovers. Local bird watcher, tourists, students, researchers, foresters, ecologists and even environmentalists are working in different field but common aim is sustenance of environment. It could be a hand guide for local and amateur ornithologists for specific or special study in the said area. Photographs on common birds have been placed serially that might be a boon to grow interest among nature lover and conservation biologist in near future.

Keywords: Common birds, West Bengal, Vegetation strata, Ecology

I. Introduction

Birds are ready visitors that visit frequently from place to place even from continent to continent. A good number of birds visit different sites due to change of environment particularly for their feed and reproduction. As the site is not homogenous for their easy life period so they need movement from one place to other. A good example is Birds of migratory kind. In our West Bengal, Storks and Siberian Cranes are common even in Lake Chilka of Odisha a large number of Pelicans and Flamingos are vivid examples of that kind. They come to thrive there for a temporary period to hatch eggs and carry a good number of offsprings during their back journey. Whatever true for those mentioned above other always move from the local area regionally for their nesting, roosting and for acquisition of feed. The supply of feed from natural reservoir is not plenty so they search their readymade or new habitat to collect their needful entities. Cultivated field is a common ground for some local birds because they need grains. Pigeon and Drongos are available in field where cultivated crops are common. But, Drongos and Green bee eaters collect insects in the same field where enormous insects are common. For roosting and nesting birds take a shelter for their own environment which is protected from any kind of enemy in the said habitat. Big trees, shrubberies, jungle, garden shrubs, river bank, stone caves, rock caves, monuments, barrage, rail station premises (Shed, rail crashed), forests, margin of lakes, temple and church, old buildings are the habitat for bird nesting and roosting. They come out during dawn and come back in dusk. Round the day they move here and there and collect their daily feed and carry valuable things to make their nests. Some birds are so common that they harbour in buildings and in cottage of men and collect food grains from villagers' premises. Good examples are pigeon (Rock pigeon) and Sparrows (House). Common dove (Spotted dove or Ground dove) found nearer to locality and move nearby round the day and roosting on shed of buildings and in the branches of trees. Passerine birds like blue magpie robin, tailor bird are commonly found in the locality from dawn to dusk. Indian Cuckoos (Kokil) are nicely sings and move faster from one habitat to another habitat. Jungle babblers are common and are found in a group which collects insects from the environment. Birds are useful to human beings. A good example is the Crows (*Corvus splendens*) who pick the dirty bio-garbage that are fallen on the road, dust bins, drains or dirty places as it find their feeds and also clean our environment. These birds are clever birds. Birds are also intelligent. A good example is the weaver bird, which once built its nest then they keep fire flies inside the nest, which lighted the nest. Cuckoos are very clever but lazy. They do not build their nest but lays their eggs in the nests of Crows which looks alike or same.

Overall, birds play a crucial role to conserve biodiversity in the globe, regionally also. They indicate the ecosystem health as it dignifies the term Ecological indicators for Ecosystem Health Assessment (EHA) which does not include indicators of the climatic conditions, which in this context are considered entirely natural conditions (Jorgensen *et al.*, 2010). The vegetation pattern and dynamics are also included in the study of birds that have positive role in the environment development. Third step model study of the natural environment is necessary to study more about the ecological impact of local birds including vegetation as per the model in a common study by Das and Ghosh, 2014. The preset study therefore a pre milestone to work in a fragile ecosystem with huge energy to grasp knowledge on common birds for conservation. Both the birds and common plant can save in a common ground if we save the ecosystem with proper application of Knowledge.

II. Area under Study

The area was whole West Bengal from Alipurduar, Jalpaiguri Districts of North Bengal to the extreme southern part of West Bengal *i.e.* Purba and Paschim Medinipur, India. Frequently tours were conducted in different parts of the district and recorded the ecology of Birds including behaviour study of the birds.

III. Materials and Methods

Methods of bird studying were divided in to 6 aspects but first three aspects were used vividly to study the birds of common type in west Bengal. Photography was made from field by ordinary digital Canon and Nikon Cameras. Altimeter, Abenys Level, Temperature meter, GPS, Tape, and Stand of Camera including Binoculars were carried out in field during bird watching. Generally dawn and dusk were selected for each day visit in field with local map of the area. General list of the plants and about the pattern of vegetation, record floras were consulted. A check list has also been prepared about the common birds available in West Bengal. Some Bird sanctuaries of West Bengal and local preservation plots were selected to study and record the photography day by day. All the characters collected from field and field photographs, some common books on birds and treatise made by Zoological Survey of India (ZSI). Thought of local people was evaluated and local publications have been consulted time to time. Interesting habitat was marked for general study of watching and roosting of bird including nesting was studied well. Some net work resource was also studied well to know better about the bird watching. These are: (i) British trust for Ornithology, (ii) Royal Society for the Protection of Birds, (iii) American Birding Association and (iv) Cornell laboratory of Ornithology at Ithaca, New York, North America. Other literature and resource was consulted was work of Wildlife Rescue & Rehabilitation centre (WRRRC), Bangalore, India. For identification of birds reference number 1-5 were used, for bird watching references 6-9 were consulted where as for identification of plants 11 and 14 number references were used.

IV. Result and Discussion

The result was presented in a serial way *i.e.* by english name, scientific name, bengali name, distribution, character, vegetation spectrum, ecology including photographs from baya bird to swan. Swan is now under red list category but available under cultivable condition. Following are the presentation about the common birds of West Bengal with photographs.

1. Common English Name: Baya weaver (Fig.1)

Scientific Name: *Ploceus philippinus*

Bengali Name: Babui

Distribution: In plain with low altitude; found India to Indo-China via Malaya,

Characters: Chirping and roosting more time, movement very swift

Photo by: Atmaja Avirupa Das from Paschim Medinipur, October 2016

Ref.: [www. Bnhs.org](http://www.Bnhs.org) (E mail-onibabnhs@gmail.net)

Vegetation Spectrum: *Strychnos nux-vomica*, *Melia azadirachta*, *Stephania hernandifolia*, *Mikania scandens*, *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, etc.

Ecology: Low abundance.

2. Common English Name: Common Flame back wood pecker under Picidae (Fig. 2)

Scientific Name: *Dinopium javanense*

Bengali Name: Kaththokra

Distribution: In all parts of plain and even in low altitude

Characters: Clever and very intelligent.

Photo by: Dr. D. Das from Paschim Medinipur, October 2016

Vegetation Spectrum: *Cocos nucifera*, *Areca catechu*, *Melia azadirachta*, *Terminalia arjuna*, etc.

Ecology: Low abundance.

3. Common English Name: Indian Roller (Fig. 3)

Scientific Name: *Coracias benghalensis*

Bengali Name: Nilkantha

Distribution: In all parts of plain

Characters: Very calm and quite.

Photo by: Dr. D Das from Paschim Medinipur, October 2016

Vegetation Spectrum: Open field tree or on pole which is very distinct from locality.

Ecology: Very Low abundance.

4. Common English Name: Indian Grey necked Crow, Ceylon Crow, Colombo Crow (Fig. 4, 5)

Scientific Name: *Corvus splendens*

Distribution: In all parts of plain and even in low altitude of hilly area

Characters: Clever and very intelligent.

Photo by: Dr. D. Das from Paschim Medinipur, October 2016

Vegetation Spectrum: *Mangifera indica*, *Ficus benghalensis*, *Ficus religiosa*, etc.

Ecology: Low abundance in city, highly abundant at Coastal belt where feed is plenty.

5. Common English Name: Indian Bulbul, Red-vented Bulbul, Common Bulbul (Fig. 6)

Bengali Name: Bulbuli

Scientific Name: *Pycnonotus cafer*

Distribution: In all parts of plain and even in low altitude of hilly area

Characters: Clever and very intelligent.

Photo by: Dr. D. Das from Midnapore town, October 2016

Vegetation Spectrum: *Melia azadirachta*, *Morinda angustifolia*, *Holoptelia integrifolia*, *Stephania hernandifolia*, *Mikania scandens*, *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, *Menilcara sapoda*, *Inga dulcus* etc.

Ecology: Moderately abundant.

6. Common English Name: Red Whiskered bulbul (Fig. 7, 8)

Bengali Name: Sepai Bulbuli

Scientific Name: *Pycnonotus jocosus*

Distribution: In all parts of shrubby habitats near water bodies., India, Indo-China, China, Java, Sumatra etc.

Characters: Very fast flew, occur rarely during breeding season mainly on June.

Photo by: Dr. D. Das from Paschim Medinipur, October, 2015

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, *Adina cordifolia*, *Mangifera indica*, *Casuarina equisetifolia* etc.

Ecology: Very Low abundance.

7. Common English Name: White breasted water hen (Fig. 9, 10)

Bengali Name: Dahuk

Scientific Name: *Amaurionis phoenicurus*

Distribution: In all parts of shrubby habitats near water bodies.

Characters: Confined in bamboo thicket or in a jungle having permanent water source round the year.

Photo by: A. A. Das and Dr. D. Das from Paschim Medinipur, October, 2016

Vegetation Spectrum: *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Phyllanthus reticulatus*, *Enhydra fluctuans*, *Ipomoea carnea*, *I. aquatica* etc.

Ecology: Moderately abundance.

8. Common English Name: Indian Myna, Common Myna (Fig. 11)

Bengali Name: Gang Salik or Sona Boni or Salik

Scientific Name: *Acridotheres tristis*

Distribution: South and Southeast Asia, In all parts of plain and even in area under low altitude of hills.

Characters: Very gentle, can be used as pet.

Photo by: A. A. Das, October 2016

Vegetation Spectrum: *Trema orientalis*, *Mangifera indica*, *Casuarina equisetifolia*, *Borassus flabellifer*, *Phoenix sylvestris*, *Cocos nucifera* etc.

Ecology: Very High abundance.

9. Common English Name: Blue Magpie-robin, Oriental Magpie –robin (Fig. 12)

Bengali Name: Doyel

Scientific Name: *Copsychus saularis*

Distribution: In all parts of plain

Characters: Quiet and calm a bird chirps during dawn or dusk.

Photo by: Dr. D. Das and A. A. Das, November 2016

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, *Adina cordifolia*, *Mangifera indica*, *Casuarina equisetifolia*, *Ravanala madagascariensis*, *Plumeria rubra*, *Tabernemonta divericata*, *Ficus elastic*, *Pandanus sp.* etc.

Ecology: High abundance.

10. Common English Name: Tailor Bird or Common Tailor bird (Fig. 13)

Bengali Name: Tuntuni or Durga tuntuni

Scientific Name: *Orthotomus sutorius*

Distribution: Wide spread in all parts of plain particularly in garden and in bushy shrubberies.

Characters: Clever and very intelligent. Available in a tale wrote by famous writer Upendra Kishore Roy Choudhry (Biral o Tuntunir Golpo). It is a passerine song bird.

Photo by: Dr. D. Das, October 2016

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, *Adina cordifolia*, *Mangifera indica*, *Casuarina equisetifolia*, *Croton bonplandianum*, *Melaleuca leucanodendron*, *Polyalthea tuberosa*, *Mikania scandens*, *Sapindus trifoliatus*, *Rosa sp.* etc.

Ecology: Highly bundant.

11. Common English Name: Stork (Fig. 14)

Bengali Name: Samuk Khole

Scientific Name: *Anastomus oscinatus*

Distribution: In all parts of plain and even in low altitude of hilly area

Characters: Clever and very intelligent.

Photo by: A. A. Das and Dr. D. Das from Kulik Bird Sanctuary, Raiganj, ttar dinajpur, 2016

Vegetation Spectrum: *Trema orientalis*, *Trewia nodiflota*, *Jacaranda ninusifolia*, *Ficus sp.*, *Phyllanthus reticulatus*, *Anthocephalus cadamba*, *Barringtonia acutangula*, *Cassia siamea*, *Ficus glomerata* etc.

Ecology: Highly abundant but migratory kind.

12. Common English Name: Asiatic Pied Starling or Pied Myna (Fig. 15)

Bengali Name: Go Mayna, Gue Salik

Scientific Name: *Gracupica contra*

Distribution: Indian Sub-continent and Southeast Asia, All parts of plain and even in low altitude of hilly area. Available as common bird along with grazing and browsing animals in an open field of West Bengal.

Characters: Quiet and calm.

Photo by: Atmaja Avirupa Das from Kulik Bird Sanctuary

Vegetation Spectrum: *Eucalyptus sp.*, *Azadirachta indica*, *Trewia nudiflora* etc.

Ecology: Highly abundant.

13. Common English Name: Indian Oriole (Fig. 16)

Bengali Name: Sona Bou, Halde Pakhi

Scientific Name: *Oriolus kundoo*

Distribution: Indian Sub-continent and Southeast Asia, All parts of plain and even in low altitude.

Characters: Quiet and calm.

Photo by: Dr. D. Das from Raiganj, Uttar Dinajpur.

Vegetation Spectrum: *Trema orientalis*, *Melia azedarach*, *Mangifera indica*, *Ficus hispida*, *Ficus sp.*, *Pothos sp.*, etc.

Ecology: Very low abundance.

14. Common English Name: Coppersmith Barbet, Copper Smith, Crimson breasted barbet (Fig. 17, 18)

Bengali Name: Basanta Bouri.

Scientific Name: *Psilopogon haemacephalus* (del Hoyo, 2014)

Syn.-*Megalaima haemacephala*, *Xantholaema haemacephala*, *Bucco indicus* (Fig. 19)

Distribution: Indian Sub-continent. All parts of plain.

Characters: Quiet and calm.

Photos by: Atmaja Avirupa Das and Dr. D. Das from Midnapore, October, 2016

Vegetation Spectrum: *Melia azadirachta*, *Trema orientalis*, *Mangifera indica*, *Michelia champaca*, *Melaleuca leucanodendron*, *Ficus bengalensis*, *Ficus glomerata*, *Mimusops indica*, *Madhuca indica*, *Lagerstroemia indica* etc.

Ecology: Moderately abundant.

Sub-species: Barbets are varied types *i.e.* as per their size, shape, colour etc. they are colourful. As per the record of literature there are 9 sub-species of barbet. These are nominate (Muller-1776), *indica* (Latham-1790), *delica* Parrot-1907), *rosea* (Dumont-1816), *homochroa* (Dziadosz & Parkes-1964), *celestinoi* (Gillard, 1949), *intermedia* (Shelley, 1891), *cebuensis* (Dziadosz & Parkes-1984), *mindanensis* (Rand, 1948). The long one observed on the branches of *Ficus benghalensis* tree at Coastal Digha area of Purba Medinipur, West Bengal, Photo by 2nd author on November 2016.

15. Common English Name: Jungle Babbler, Seven Sisters, Seven Brothers (Fig. 20)

Bengali Name: Chatare, Sat bhaya, Satbhai.

Scientific Name: *Turdoides striatus*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Quiet and calm found in a group.

Photo by: Dr. D Das from Paschim Medinipur during October 2016

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, *Adina cordifolia*, *Mangifera indica*, *Casuarina equisetifolia* and almost in all plants near the locality.

Ecology: Highly abundant.

16. Common English Name: Black Drongo (Fig. 21)

Bengali Name: Finge

Scientific Name: *Dicrurus macrocericus*

Distribution: Open field, waste land, margin of forest, bank of river, near sea shore; Indian Sub-continent. All parts of plain.

Characters: Very swift and flew with anger.

Photo by: Dr. D. Das from Kulik bird sanctuary, Raiganj October 2016

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Shorea robusta*, *Ficus sp.*, *Terminalia arjuna*, *Terminalia tomentosa*, *Tamarindus indica*, *Adina cordifolia*, *Mangifera indica*, *Casuarina equisetifolia*, *Azadirachta indica*, *Albizia lebeck*, *Samanea samman*, *Cassia tora*, *Cassia alata*, *Jatropha gossypifolia*, *Madhuca indica*, *Diospyros melanoxylon*, etc.

Ecology: Low abundance.

17. Common English Name: Spotted Dove (Fig 22, 23)

Bengali Name: Ghughu.

Scientific Name: *Spilopelia chinensis*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Very slow with least roosting during daytime.

Photo by: Dr. D. Das (left) and (right) from Paschim Medinipur during October 2016

Vegetation Spectrum: *Mangifera indica*, *Adina cordifolia*, *Casuarina equisetifolia*, *Syzygium cumini*, *Terminalia bellerica*, *Terminalia catappa*, *Calistemon parviflora* etc.

Ecology: Abundant.

18. Common English Name: Intermediate Egret, Median Egret, Small egret (Fig. 24)

Bengali Name: Bok

Scientific Name: *Mesophoyx intermedia*

Distribution: Indian Sub-continent. All parts of plain where plenty fishes available.

Characters: Very swift and fish eater on wet land.

Photo by: Dr. D Das from Kulik river of Raiganj Bird Sanctuary area during October 2016

Vegetation Spectrum: *Ficus benghalensis*, *Ficus hispida*, *Casuarina equisetifolia*, *Eucalyptus globosus*, *Terminalia arjuna*, *Barringtonia acutangula* etc.

Ecology: Low abundance.

19. Common English Name: White breasted King Fisher (Fig. 25)

Bengali Name: Mach ranga

Scientific Name: *Halcyon smyrensis*

Distribution: Indian Sub-continent. All parts of plain.

Characters: fish eating and fish catching bird.

Photo by: Dr. D Das from Raiganj during October 2016

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, *Adina cordifolia*, *Mangifera indica*, *Casuarina equisetifolia*, *Bambusa sp.*, *Typha sp.*, *Pandanus sp.*, *Odina wodier*, *Borassus flabellifer*, *Bambusa tulda*, *B. balcua* etc.

Ecology: Moderately abundant.

20. English Name: Pied King Fisher (Fig. 26)

Bengali Name: Chite mach ranga

Scientific Name: *Ceryle rudis* (Black and white plumage)

Distribution: Indian Sub-continent, Asia and Africa. All parts of plain.

Characters: Very swift and dangerous to fish, before catching the fish hovering over the river for a moment.

Photo by: Dr. D.Das from Raiganj during October 2016

Vegetation Spectrum: *Bamusa sp.*, *Ficus semicordata*, *Ficus bengalensis*, *F. Religiosa*, *Typha angustifolia* etc.

Ecology: Very Low abundance.

21. Common English Name: White duck, Common Duck (Fig. 27)

Bengali Name: Hans

Scientific Name: *Anas platyrhynchos* (Family-Anatidae)

Distribution: Indian Sub-continent. All parts of plain.

Characters: Domestic bird

Photo by: Dr. D. Das from Raiganj during October 2016

Vegetation Spectrum: *Trapa bispinosa*, *Salvinia sp.*, *Azolla sp.*, *Ipomoea aquatic*, *Enhydra fluctuens*, *Alternanthera sessile*, *Jussia repens*, *Ipomoea fistula* etc.

Ecology: Abundant.

22. Common English Name: Asian Koel, Common Cuckoo (Male)

Bengali Name: Kokil (Fig. 28)

Scientific Name: *Eudynamys scolopacea*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Very swift and with awful coloured feathers.

Photo by: Atmaja Avirupa Das from Midnapore during November, 2016

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Pothos sp.*, *Phyllanthus reticulatus*, *Adina cordifolia*, *Mangifera indica*, *Casuarina equisetifolia* etc. Nearly in almost all plants.

Ecology: Highly abundant.

23. Common English Name: Rufous Treepie (Fig. 29)

Bengali Name: Leg Jhola

Scientific Name: *Dendrocitta vagabunda*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Very swift and always in action either for quarling with others or for her own.

Photo by: Dr. D. Das from Midnapore Town during October 2016

Vegetation Spectrum: *Mangifera indica*, *Moring oleifera*, *Holoptelia integrifolia*, *Streblus asper*, *Inga dulcis*, *Tamarindus indica*, *Manilkera sapoda*, *Madhuca indica* etc.

Ecology: Higly abundant.

24. Common English Name: Indian ring-necked parrot (Fig. 30, 31)

Bengali Name: Tiya,

Scientific Name: *Psittacula krameri manillensis*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Very punctual about them.

Photo by: Dr. D. Das from Karnagarh, Midnapore, October 2016

Vegetation Spectrum: *Michelia champaca*, *Seraca asoka*, *Terminalia arjuna*, *Ficus bengalensis*, *F. Religiosa*, *Disoxylum sp.*, *Borassus flabellifer* etc.

Ecology: Highly abundant.

25. English Name: Rock dove (Female and Male) (Fig. 32-33)

Bengali Name : payra

Scientific Name: *Columba livia*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Can be used as pets

Photo by: Dr. D. Das from Paschim Midnapore, October 2016

WHITE PIGEON (Fig. 34)

Vegetation Spectrum: In rice field and in fallow land. Plants with seeds of *Chrozophora plicata*, *Croton bonplandianum*, *Brassica nigra*, *Lathyrus sativa*, *Triticum aestivum*, *secale* etc. are common for the birds like rock dove and common dove.

Ecology: Highly abundant.

26. Common English Name: Green Bee eater (Fig. 35)

Bengali Name: Banspati

Scientific Name: *Meropus orientalis*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Very punctual about their eating , stay and sitting constantly and observe insects.

Photo by: Dr. D Das from Paschim Midnapore, October 2016

Vegetation Spectrum: *Trema orientalis*, *Bamusa sp.*, *Mangifera indica*, *Tinospora cordifolia*, *Ficus sp.*, *Adina cordifolia*, *Madhuca indica*, *Sterculia villosa*, *Casuarina equisetifolia*, *Ziziphus jujube*, *Samanea sama* etc.

Ecology: Moderately abundant.

27. Common English Name: Sunbird (Fig. 36)

Bengali Name: *Moutusi*

Scientific Name: *Nectariana* sp.

Distribution: Indian Sub-continent. All parts of plain.

Characters: Very punctual about their visit.

Photo by: A. A. Das, from Paschim Midnapore, October 2016

Vegetation Spectrum: *Hibiscus rosa-sinensis*, *Calistemon parviflora*, *Bignonia venusa*, *Ixora sp.*, *Bauganvillea spectabilis*, *Cascabela coronaria*, *Plemeria rubra*, *Tecoma stans*, *Melaleuca leucanodendron*, *Nerium sp.*, etc.

Ecology: Low abundant..

28. Common English Name: Common Indian Kite or Black Kite (Fig. 37)

Bengali Name: *Chil*

Scientific Name: *Milvus migrans* or *Falco migrans*

Distribution: Indian Sub-continent. All parts of plain, even low altitude of hill.

Characters: Very punctual about their flight, they can glide.

Photo by: Atmaja Avirupa Das of Paschim Midnapore, October 2016

Vegetation Spectrum: High strata of tree like *Shorea robusta*, *Eucalyptus tereticornis*, *Ficus benghalensis*, *F. religiosa* etc.

Ecology: Very Low abundance.

29. Common English Name: Indian Golden Oriole, Black Hooded Oriole (Fig. 38)

Bengali Name: Benebou, Halde Boni, Bou katha kou

Scientific Name: *Oriolus xanthormus*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Abundantly found in the premises of locality.

Photo by: A. A. Das, from Paschim Midnapore, November, 2016

Vegetation Spectrum: *Gmelina arborea*, *Dalbergia sissoo*, *Terminalia arjuna*, *Eucalyptus tereticornis*, *Bambusa balca* etc.

Ecology: Very low abundance

30. Common English Name: Cattle Egret (Fig. 39)

Bengali Name: Dhar Bok or Go Bok

Scientific Name: *Bubulcus ibis*

Distribution: Indian Sub-continent. All parts of plain.

Characters: Abundantly found in the grazed land.

Photo by: Dr. D. Das from Coastal Part of Digha, Novembert, 2016

Vegetation Spectrum: *Clerodendrum viscosum*, *Cassia sophera*, *C. tora*, *C. alata*, *Solanum xanthocarpum*, *Andropogon sorghum*, *Eragrostis tenella* etc.

Ecology: Moderately abundant.

31. Common English Name: Northern Raven, Common Raven (Fig. 40, 41)

Bengali Name: Darkakh

Scientific Name: *Corvus corax*

Distribution: Indian Sub-continent. All parts of plain and in hill slopes of low altitude.

Characters: Abundantly found in the premises of locality, very clever.

Photo by: Dr. D. Das, from Digha, Coastal Medinipur, Novembert, 2016

Vegetation Spectrum: *Casuarina equisetifolia*, *Holarrhena antidysenterica*, *Anacardium occidentale*, *Melaleuca leucanodendron*, *Alstonia scholaris*, *Acacia auriculiformis*, *Cassia siamea*, *Salmalia insignis* etc.

Ecology: Low abundance

32. Common English Name: Whooper or Hopper Swan (Fig. 42)

Bengali Name: Raj hans or Raj Hansha

Scientific Name: *Cygnus cygnus*

Distribution: Indian Sub-continent and in Northern Hemisphere. It is a species under red list Category as per IUCN.

Characters: Very quit and calm, Frequency low and found as domesticated bird.

Photo by: Dr. D. Das, from Digha, Coastal Medinipur, Novembert, 2016

Vegetation Spectrum: *Clerodendrum viscosum*, *Cassia sophera*, *C. tora*, *C. alata*, *Solanum xanthocarpum*, *Andropogon sorghum*, *Eragrostis tenella*, *Ipomoea fistulosa*, *I. Aquatic*, *Eupatorium odoratum*, *Lantana camara*, *Trapa bispinosa*, *Enhydra fluctuans*, etc.

Ecology: Very low abundance but available under special condition as pet bird.

V. Conclusion

Pandanus sp. of Pandanaceae (Fig. 46) at coastal area can protect soil from soil erosion and also protect some birds like white breasted kingfisher and sparrows. Some plants are common in hills which attract birds due to their beautiful colour. A good example is colourful *Rhododendron arboreum* (Fig. 47) in hilly areas of West Bengal that harbour beautiful tits. Asare (Fig. 45) or *Viburnum* sp. in high altitude attracts large number of birds for their shelter even for long term nesting. Series of *Jhau* plantation (*Casuarina* sp.) stand luxuriantly and grow near coastal area (Fig. 44) and give shelter to crows and cranes. Wild animals like Boars, Elephants and Indian Gaur collect grass from underneath of forest but always with close association of birds like cattle egret (Fig. 43). This is the common mutuality in the large association. As a whole, we must need the patience and kith and kin observation to study more about bird and ecology of community where birds can thrive. Hope that readers will take care during their reading because we need better ecosystem which is somehow restored one from the pristine type.

Acknowledgements

We boldly acknowledge our Indian pioneer of Ornithologists Late Salim Moizuddin Abdul Ali (12.11.1896 to 20.06.1987) and pioneer of Indian Ornithology Sri Humayun Abdul Ali, Cousin of Dr. Salim Ali (Bird man of India) for their amazing work in the field from which we took kith and kin interest. The second author is very much interested to study the Ornithophily in connection with the study of birds. We convey our deep and sincere thanks to some foresters, researchers, students and local people whose indirect help made our effort linearly successful up to preparation of the manuscript. Our friend Dr. Biswajit Maity of Physics Department, Govt. General Degree College, Kharagpur-II, Midnapore helped much regarding capturing photos in field even to use binocular and GPS in field. We thank to Dr. Maity. We are thankful to Smt. Pampi Ghosh, Assistant professor, Seva Bharati Mahavidyalaya Kapgari, Paschim Medinipur who helped us in different ways during field visit. Last but not least we convey our thanks to Dr. R. B. Ghosh, retired scientist for her due encouragement in scientific research.

PHOTOGRAPHS



Fig. 1 Baya weaver



Fig. 2 Common Flame back wood pecker



Fig. 3 Indian Roller



Fig.4 Crow



Fig.5 Indian Grey necked Crow, Ceylon Crow, Colombo Crow (Fig. 4, 5)



Fig. 6 Indian Bulbul, Red-vented Bulbul, Common Bulbul (Fig. 6)



Fig. 7 - 8 Red Whiskered bulbul



Fig. 9-10 White breasted water hen



Fig. 11 Indian Myna, Common Myna



Fig. 12 Blue Magpie-robin, Oriental Magpie-robin



Fig. 13 Tailor Bird or Common Tailor bird



Fig. 14 Asian Stork



Fig. 15 Asian Pied Starling or Pied Myna



Fig. 16 Indian Oriole



Fig. 17-18 Copper smith Barbet, Copper Smith, Crimson breasted barbet



Fig. 19 Sub-species: Barbets are varied types *i.e.* as per their size, shape, colour etc. they are colourful. As per the record of literature there are 9 sub-species of barbet. These are nominate (Muller-1776), indica (Latham-1790), delica Parrot-1907), rosea (Dumont-1816), homochroa (Dziadosz & Parkes-1964), celestinoi (Gillard, 1949), intermedia (Shelley, 1891), cebuensis (Dziadosz & Parkes-1984), mindanensis (Rand, 1948). The long one observed on the branches of *Ficus benghalensis* tree at Coastal Digha area of Purba Medinipur, West Bengal, Photo by 2nd author on November 2016.



Fig. 20 Jungle Babbler, Seven Sisters, Seven Brothers



Fig. 21 Black Drongo



Fig. 22-23 Spotted Dove



Fig. 24 Intermediate Egret, Median Egret, Small egret



Fig. 25 White breasted King Fisher



Fig. 26 Pied King Fisher



Fig. 27 White duck, Common Duck



Fig. 28 Asian Koel, Common Cuckoo (Male)



Fig. 29 Rufous Treepie



Fig. 30-31 Indian ring-necked parrot



Fig. 32-33 English Name: Rock dove (Female and Male)



Fig. 34 White Pigeon



Fig. 35 Green Bee eater



Fig. 36 Sunbird



Fig. 37 Common Indian Kite or Black Kite



Fig. 38 Indian Golden Oriole, Black Hooded Oriole



Fig. 39 Cattle Egret



Fig. 40-41 Northern Raven, Common Raven



Fig. 42 Whooper or Hopper Swan



Fig. 43 During Bird watching at Sukuna Wildlife Sanctuaray, West Bengal, India. Note that Cattle Egret sitting on the head of Asian Elephant (*Elephus maximus*).



Fig. 44 Coastal Vegetation at Digha of Purba Medinipur, extreme south of Southwest Bengal



Fig. 45 *Viburnum* sp. in high altitude an attractive plant one for birds



Fig. 46 Pandunus sp. at Coastal Digha boosts large number of Birds



Fig. 47 flowers of Rhododendron arboretum attract Birds



Fig. 48 Author (1) in field during Bird watching, 2016



Fig. 49 Author (2) before going to Field study at Purulia



Fig. 50 Team Leader Dr. Biswajit Maity, Bird watching Group at Lamaidhra during Tonglu Trip at Darjeeling asking some aspects of route even wildlife available in Sigalila National Park, Darjeeling

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