

Avifaunal diversity of Asolamendha dam of Chandrapur (MS), India

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ABSTRACT

Birds play a vital role in keeping this balance of nature. In addition to being important parts of food webs, birds play other roles within ecosystems. Birds eat insects. They are a natural way to control pests in gardens, on farms, and other places[1]. Birds are essential animal group of an ecosystem and maintain a trophic level. Therefore, detail study on avifauna and their ecology is important to protect them. The present investigation was carried out to document the avifauna in and around the Asolamendha Dam located 60 km away from Chandrapur district of Maharashtra State and the study is from Oct. 2016 to Sep. 2017 in which 98 species of birds were recorded of 21 different orders and 53 families during the study. Among the recorded species 74 were resident, 17 were resident migrant and 08 were migratory. Due to abundant food available throughout the year in Asolamendha Dam in the form of aquatic crustaceans, insects, molluscs etc. the lake always attracts a large number of birds throughout year.

Keywords Avifauna, Asolamendha Dam, avifaunal diversity, Habit and Habitat.

INTRODUCTION

Birds are found throughout the world, at approximately all altitudes and in nearly every climate. They are a natural way to control pests in gardens, on farms, and other places. They aid in the pollinization of plants. By landing on a plant or sucking the nectar from a flower, and then moving on to the next, a bird does the job usually associated with bees. Birds also have a good system for spreading seeds.

They eat berries and then when they "dispose of" their waste, the berry seeds are disposed along with it. Bird feces provide good fertilization for the seeds with which they are dropped, giving seeds very good conditions with which to grow[2].

Diversity of avifauna is one of the most important ecological indicators to evaluate the quality of habitats. Now-a-days, avifaunal diversity has been decreasing due to the destruction of natural habitats and human disturbances. Random destruction of natural habitats by cutting nesting trees and foraging plants for commercial use of woods and lands are the main factor responsible for narrow down in avian foraging habitat and their nesting sites. Thus, many species of birds may be forced to inhabit in the urban areas and constrain them to breed there[3].

The Asolamendha Dam was constructed as part of Irrigation Projects by the Britishers during the British Raj in the Year 1918. It is built on and impounds Pathari River of Saoli taluka of Chandrapur District of Maharashtra. The dam is an Earth fill Dam. The Length of dam is 1376.52 m (4516.1417 Feet), while the Height of the dam above lowest foundation is 18.08 m (59.3175 feet). Project has other type of spillway. Length of the spillway is 231.6 m (2759.8425 Feet). The Dam's catchment area is 24.553 Thousand Hectors. Maximum / Gross storage capacity is 67.015 MCM. Live storage capacity is 56.375 MCM. Now days almost all the water bodies make for well picnic spots. Asolamendha Lake is also a popular Tourist attraction for its scenic beauty. Hilly terrain and forest adds to the natural beauty.

During the last few decades considerable studies on avifauna diversity from different freshwater bodies of India have been carried out by researchers like, Osmatston (1922), Singh (1929), Ali (1932), Kannon (1980), Davidar (1985), Jhingram (1988), Ghazi (1962), Mujumdar (1984), Newton *et al.*, (1986), Ghosal (1995), Kulkarni *et al.*, (2005), Yardiet *et al.*, (2004) and Wadatkar and Kasambe (2002)[4-16]. However very little information is available about avifauna of centre India. This work has therefore undertaken of document the avifauna of Asolamendha Dam located in Saoli taluka of Chandrapur district.

The Asolamendha dam is harbor a large number of fauna which attract the birds shown that the entire lake basin is highly productive and conducive to all kinds of birds. The Asolamendha dam is harbors a number of aquatic weeds in the submerged as well as floating state on which thrive a large number of organisms.

METHODOLOGY

The present work was carried out from Oct. 2016 to Sep. 2017. The observation were carried out by using a field binocular (7x25x magnification) during the morning (6 to 10 AM) and in the evening (4 to 6 PM) and identification of species was done with the help of standard literature of Woodcock (1980), Ali, S. and Ripley, S.D. (1995)[17-18] and photograph by Canon D50 Camera.

RESULTS AND DISCUSSION

During the present investigation, a total of 98 birds species belonging to 21 different orders and 53 families were recorded from the Asolamendha Dam.

Among the recorded order the species of birds, 30 species belongs to Passeriformes, 12 species belongs to Charadriiformes, 11 species belongs to species belongs to Ciconiformes, 7 species belongs to Coraciiformes, 5 species belongs to Columbiformes, 4 species each belongs to Galliformes, Psittaciformes and Anseriformes, 3 species belongs to Cuculiformes, 2 species each belongs to Piciformes and Falconiformes, Strigiformes and 1 each species belongs to Podicipediformes, Pelecaniformes, Galconiformes, Apodiformes, Caprimulgiformes, Pelecaniformes, Passerinae, Ploceinae and Rhipiduridae.

Among the families recorded species of birds 7 species belongs to Scolopacidae families, 6 species belongs to Anatidae, 5 species belongs to Columbidae and Ardeidae, 3 species belongs to Gruidae, Sturnidae and Muscicapidae, 3 species belongs to Passeridae, Cuculidae and Ciconidae, 2 species each belongs to Charadriidae, Psittacidae, Cuculidae, Alcedinidae, Phasianidae, Lanidae, Muscicapidae, Corvidae, Estrildidae, Picidae, Strigidae, Scolopacidae and 1 species each belongs to Ardeidae, Glareolidae,

Phalacrocoracidae, Recurvirostridae, Threskiornithidae, Podicipedidae, Meropidae, Coraciidae, Upupidae, Bucerotidae, Alcedinidae, Dicuridae, Pycnonotidae, Necatarinidae, Hirudinidae, Sylviidae, Campephagidae, Cisticolidae, Campephagidae, Zosteropidae, Cisticolidae, Alaudidae, Motacillidae, Apodidae, Strigidae, Phalacrocoracidae, Motacillidae, Oriolidae, Corvidae, Ploceinae, Phipiduridae and Rallidae.

Depending on different scientific classifications, as of today there are over 9000 birds species and more than 1250 in India, with almost 150 having become extinct after the arrival of Humans. 25 to 30 avian orders are recognized depending on the taxonomists. According to Osmaston (1922)[19] studied 135 species of birds from Pachmari (M.P.), Ali (1939, 1940)[20] published a list of 278 species of birds from central India, Newton *et al.*, (1986)[21] have listed the birds of Kanha Tiger Reserve (M.P.), Ghosal (1995)[22] have listed the birds of Kanha Tiger Reserve (M.P.), Wadtkar and Kasambe (2002)[23] reported 171 species of birds at Pohara-Malkhed forest reservoir of Amravati district(M.S.), Kedar and Patil (2005)[24] recorded 60 birds species from Rishi lake Karanja (Lad) of Washim district(M.S.), Kulkarni *et al.*,

(2005)[25] reported 151 species of birds in and around Nanded city(M.S.), Kulkarni and Kanwate (2006)[26] reported 18 species of birds in Dongarkhed irrigation of Hingoli district. (M.S.), Kedaret *al.*, (2008)[27] recorded 74 species of birds in Rishi and Zedshi lake of Washim district(M.S.), Kanwate and Jadhao (2010)[28] recorded 10 species of birds in Bhokartahsil of Nanded district(M.S.), Thakoret *al.*, (2010)[29] reported 104 species of birds from two reservoirs of Khed district, Gujrat, India. Kurhade (2010)[30] reported 208 species of birds in Jaikwadi reservoirs near Ahmadnagar(M.S.), Kukadeet *al.*, (2011)[31] recorded 68 birds species of Chhattri lake of Amravati district(M.S.), Harney, *et al.*, (2012)[32] recorded 37 species of birds from Kanhala pond of Bhadrawati, District Chandrapur (M.S.), Harney, *et al.*, (2013)[33] recorded 37 species of birds from Kanhala pond with preference to feeding habits of Bhadrawati, District Chandrapur (M.S.) and NatarajanMariappan *et al.*, (2013)[34] recorded 92 species of birds from Different Habitats of Agricultural Ecosystem of Pollachi(T.N.)

Keeping in view the varied avifauna recorded, steps should be taken to do proper maintenance and beautification of the dam.

Table 1 Birds species found in Asolamendha Dam

Sr.No.	Order/Family	Scientific name	Common name	Habit
1	Ciconiformes Scolopacidae	Gallinagagallinago	Common Snipe	R
2	Ciconiformes Ardeidae	Mesophoyxintermedia	Intermediate Egret	R
3	Ciconiformes Ardeidae	<i>Bubulcus ibis</i>	Cattle Egret	R
4	Ciconiformes Ardeidae	<i>Casmerodiusalbus</i>	Large Egret	RM
5	Ciconiformes Ciconidae	<i>Anastomusosciatans</i>	Asian Open Bill Stork	R
6	Ciconiformes Ciconidae	<i>Ephippiorhyrichosasiaticus</i>	Black Necked Stork	M
7	Ciconiformes Threskiornithidae	<i>Pseudibispapillosa</i>	Black Ibis	RM
8	Podicipediformes Podicipedidae	<i>Tachybaptusruficollis</i>	Little Grebe	RM
9	Ciconiformes Ardeidae	<i>Ardeacinerea</i>	Grey Heron	RM
10	Ciconiformes Ardeidae	<i>Ardeolagrayii</i>	Indian Pond Heron	R
11	Charadriformes Scolopacidae	<i>Limosalimosa</i>	Black Tailed Godwit	RM
12	Ciconiformes Ciconiidae	<i>Mycteria leucocephala</i>	Painted Stork	M
13	Ciconiformes Ardeidae	<i>Egretta garzetta</i>	Little Egret	R

Sr.No.	Order/Family	Scientific name	Common name	Habit
14	Anciriformes Anatidae	<i>Anaspoecilorhyncha</i>	Spot Bill Duck	RM
15	Anciriformes Anatidae	<i>Nettapuscoromandelianus</i>	Cotton Teal	M
16	Falconiformes Anatidae	<i>Elanuscaeruleus</i>	Black Winged Kite	R
17	Charadriformes Scolopacidae	<i>Tringatotanus</i>	Common Redshank	RM
18	Charadriformes Charadriidae	<i>Charadriusdubius</i>	Little RingePlover	R
19	Falconiformes Anatidae	<i>Milousmigrans</i>	Black Kite	R
20	Galliformes Phasinidae	<i>Fracolinuspondicerianus</i>	Grey Francolin	R
21	Galliformes Gruidae	<i>Fulicaatra</i>	Common Coot	M
22	Pelecaniformes Phalacrocoracidae	<i>Phalacrocoraxniger</i>	Little Cormorant	RM
23	Charadriformes Recurvirostridae	<i>Himantopushimantopus</i>	Black Winged Stilt	R
24	Charadriforme Charadriidae	<i>Vanellusindicus</i>	Red wattle Lapwing	R
25	Charadriformes Scolopacidae	<i>Actitishypoleucos</i>	Common Sandpiper	RM
26	Charadriformes Glareolidae	<i>Cursoriuscoromandelicus</i>	Indian Courser	R
27	Galliformes Gruidae	<i>Amauromisphoenicurus</i>	White-Breasted Water Hen	R
28	Galliformes Gruidae	<i>Porphyrioporphyrio</i>	Purple Moorhen	R
29	Charadriformes Scolopacidae	<i>Tringanebularia</i>	Common Greenshank	RM
30	Charadriformes Scolopacidae	<i>Tringaochropus</i>	Green Sandpiper	M
31	Charadriiformes Scolopacidae	<i>Tringaglareola</i>	Wood Sandpiper	R
32	Charadriformes Scolopacidae	<i>Philomachuspugnax</i>	Ruff	R
33	Charadriformes Scolopacidae	<i>Gallingestenura</i>	Pintail Snipe	R
34	Columbiformes Columbidae	<i>Columba livia</i>	Rock (Blue) Pigeon	R
35	Columbiformes Columbidae	<i>Streptopeliadecaocto</i>	Eurasian Collared (Indian Ring) Dove	R
36	Columbiformes Columbidae	<i>Stigmatopeliasenegalensis</i>	Little Brown Dove	R
37	Columbiformes Columbidae	<i>Treronphoenicopterus</i>	Yellow Footed Green Pigeon	R
38	CoraciformesCoraciidae	<i>Coraciasbenghalensis</i>	Indian Roller	RM
39	Coraciformes Upupidae	<i>Upupaepops</i>	Common Hoopoe	RM
40	Columbiformes Columbidae	<i>Streptopeliachinensis</i>	Spotted Dove	R
41	Psittaciformes Psittacidae	<i>Psittaculakrameri</i>	Rose Ringed Parakeet	R

Sr.No.	Order/Family	Scientific name	Common name	Habit
42	Psittaciformes Cuculidae	<i>Eudynamysscolopaceus</i>	Asian Koel	R
43	Psittaciformes Cuculidae	<i>Centropussinensis</i>	Greater Coucul	R
44	Psittaciformes Psittacidae	<i>Psittaculacyanocephala</i>	Plum Headed Parakeet	R
45	Coraciformes Alcedinidae	<i>Alcedoatthis</i>	Small Blue Kingfisher	RM
46	Coraciformes Alcedinidae	<i>Halyconsmyrnesis</i>	White Breasted Kingfisher	R
47	Coraciformes Meropidae	<i>Meropsorientalis</i>	Small Green Bee Eater	R
48	Coraciformes Bucerotidae	<i>Ocycerosbirostris</i>	Indian Grey Hornbill	R
49	Coraciformes Alcedinidae	<i>Cerylerudis</i>	Pied Kingfisher	R
50	Passeriformes Laniidae	<i>Laniusvittatus</i>	Bay Backed Shrike	R
51	Passeriformes Sturnidae	<i>Sturnuspagodarum</i>	Brahminy Myna	R
52	Passeriformes Lanidae	<i>Laniusschach</i>	Rufousbacked Shrike	R
53	Passeriformes Dicruididae	<i>Dicrurusmacrocerus</i>	Black Drongo	R
54	Passeriformes Sturnidae	<i>Acridotherestrictis</i>	Common Myna	R
55	Passeriformes Sturnidae	<i>Sturniapagodarum</i>	Brahminy Starling	M
56	Passeriformes Muscicapidae	<i>Saxicolodiesfulvicatus</i>	Indian Robin	R
57	Passeriformes Nectarinidae	<i>Cinnyrisasiaticus</i>	Purple Sunbird	R
58	Passeriformes Passeridae	<i>Hydrophasianuschirurgus</i>	Pheasant Tailed Jacana	R
59	Passeriformes Hirudinidae	<i>Hirundorustica</i>	Common Swallow	RM
60	Passeriformes Pycnonotidae	<i>Pycnonotuscafer</i>	Red Vented Bulbul	R
61	Passeriformes Muscicapidae	<i>Turdoidesstriat</i>	Jungal Babbler	R
62	Passeriformes Sturnidae	<i>Sturnus contra</i>	Pied Myna	R
63	Passeriformes Corvidae	<i>Corvussplendens</i>	House Crow	R
64	Passeriformes Corvidae	<i>Corvusmacrorhynchos</i>	Jungal Crow	R
65	Passeriformes Passeridae	<i>Anthusrufulus</i>	Paddyfield Pipit	R
66	Passeriformes Alaudidae	<i>Ereopterixgrisea</i>	Ashy Crowned Sparrow Lark	R
67	Passeriformes Sylviidae	<i>Chrysommasinense</i>	Yellow Eyed Babbler	R
68	Passeriformes Muscicapidae	<i>Culicicapaceylonensis</i>	Grey Headed Canary Flycatcher	RM
69	Passeriformes Muscicapidae	<i>Terpsiphoneparadisi</i>	Asian Paradise Flycatcher	RM

Sr.No.	Order/Family	Scientific name	Common name	Habit
70	Passeriformes Muscicapidae	Copsychussauralis	Oriental Magpie Robin	R
71	Passeriformes Campephagidae	Tephrodornispondicerianus	Common Woodshrike	R
72	Passeriformes Muscicapidae	Saxicolacaprata	Pied Bushchat	R
73	Passeriformes Cisticolidae	Priniasocialis	Ashy Prinia	R
74	Passeriformes Campephagidae	Pericrocotuscinnaoeus	Small Minivet	R
75	Passeriformes Zosteropidae	Zosterospalpebrosus	Oriental White Eye	R
76	Passeriformes Cisticolidae	Orthotomussutorus	Common Tailorbird	R
77	Anseriformes Anatidae	Tadornaferruginea	Brahminyshelduck	M
78	Gruiformes Rallidae	Amauornisphoenicurus	White-breasted Waterhen	R
79	Passeriformes Estrildidae	Lonchuramalabarica	Indian Silverbill	R
80	Galconiformes Phasianidae	Pavocristatus	Indian Peafowl	R
81	Passeriformes Motacillidae	Motacillmaderaspatensis	White Browed Wagtail	R
82	Passeriformes Estrildidae	Amandavaamandava	Red Aavadavat	R
83	Piciformes Picidae	Dendrocopusmahrattensis	Yellow-Crowned Woodpecker	R
84	Piciformes Picidae	Dinopiumbenghalense	Black RumpedFlameback	R
85	Cuculiformes Cuculidae	Clamatorjacobinus	Pied Cuckoo	R
86	Cuculiformes Cuculidae	Cuculuscanorus	Common Cuckoo	R
87	Cuculiformes Cuculidae	Centropusparroti	Southern Coucal	RM
88	StrigiformesStrigidae	Otusbakkamoena	Collared Scoops Owl	R
89	StrigiformesStrigidae	Athenebrama	Spotted Owlet	R
90	Apodiformes Apodidae	Apusaffinis	House swift	R
91	Caprimulgiformes Strigidae	Caprimulgusasiaticus	Indian Nightjar	R
92	Pelecaniformes Phalacrocoracidae	Phalacrocoraxfuscicollis	Indian Cormorant	R
93	Motacillidae Oriolidae	Oriolusoriolus	Eurasian Golden Oriole	R
93	Passeridae Corvidae	Dendrocittavagabunda	Rufous (Indian) Treepie	R
95	Passeridae Passerinae	Passer domesticus	House Sparrow	R
96	Passeridae Ploceinae	Ploceusphilippinus	Baya Weaver	R

Sr.No.	Order/Family	Scientific name	Common name	Habit
97	Rhipiduridae Rhipiduridae	Rhipidura aureola	White Browed Fantail	R
98	Anseriformes Anatidae	Anser indicus	Bar Headed Goose	M

R= Residential M= Migratory RM= Residential Migratory

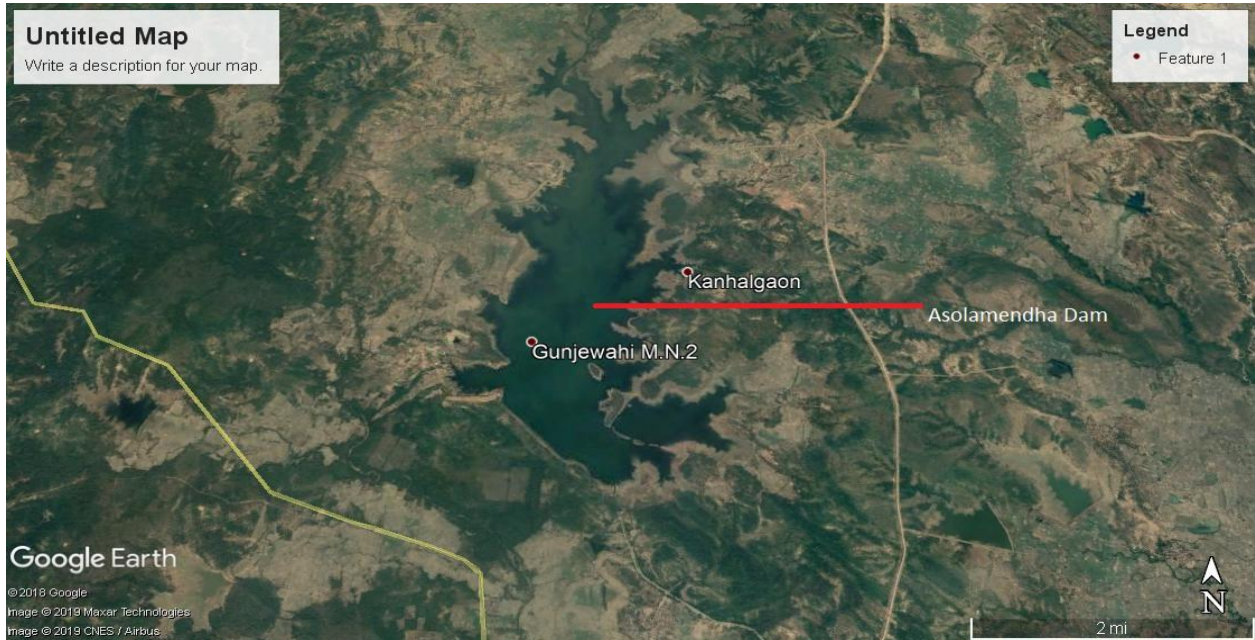


Fig 1 – Satellite image of Asolamendha Dam

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