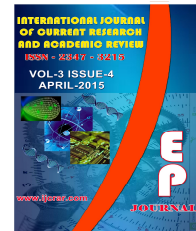




International Journal of Current Research and Academic Review

ISSN: 2347-3215 Volume 3 Number 4 (April-2015) pp. 328-351

www.ijcrar.com



Birds from Godavari River Basin in Nanded District of Maharashtra State, India: Annotated status and new reports

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KEYWORDS

Birds,
Maharashtra,
Godavari
River,
Nanded

A B S T R A C T

It is essential to keep on sighting the birds in any zoogeographical and ecological region due to their ability to react with the habitat by their single parameter as presence or absence. The avifauna was reported from different isolated habitats by various authors from year 2005 but in the present actual situation of avifauna in Nanded region especially along the Godavari River and its few tributaries, constructed minor ponds in the region was thoroughly sighted during two years period in different seasons and listed 168 species of birds belonging to 53 Families and 15 Orders. 17 bird species are newly reported, supported by enclosing 90 colour photographs. Passeriformes species were highest among the observed. Winter migrants from South African continent, Russia and Europe were sighted. First time the details of reported bird species with photographs reported. It will be an important data for the ornithologists in future and at present. Similarly to proceed some ecological and biological studies on the migrant, residential, scavenger or predatory, threatened avifauna can be designed based on this review from Nanded region. Continuous monitoring on the avifaunal diversity was suggested to evaluate the ecological status of the habitats and birds. It can be considered as an efficient tool to the environmentalists, policy makers in order to conserve such species. Because, the role of birds in an ecosystem cannot be ignored.

Introduction

Birds are markers of environmental quality. Birds amaze us due to their long journey to overcome the unfavourable conditions and to reach the suitable feeding and breeding grounds. Birds are continuously struggling

against environmental factors since past and adapted themselves against environmental as well as anthropogenic disturbances in the recent time is something remarkable. As compared to all other habitats, like water

bodies with vegetation, hydrophytes and surrounding scrub, tree cover was most suitable for congregating diversity of bird species (Newton, 1995; Islam and Rahmani, 2004). Water bodies also support wide range of biodiversity hence most suitable for birds to get variety of food, good and safe place to lay the eggs (Islam and Rahmani, 2004).

Nanded district is located in south-west region of Maharashtra State in India. Godavari river basin is the principal source of water for agriculture, industry and biodiversity in this region. Hilly region with isolated natural as well as constructed minor ponds are in the south-eastern parts while the north-eastern parts of the district has forest cover in Kinwat taluka. The north-west and south-west parts are with plane agricultural black soil and rare scrub land region with small hills. Temperature of the region range from 15 °C – 42 °C. Nanded region therefore includes varied habitat conditions. In Nanded region there are very few reports on avifaunal diversity studies carried out (Kulkarni, et. al., 2005, 2006 (a), 2006 (b), 2006 (c)); (Balkhande et. al., 2011, 2012, 2013, 2014); (Kulkarni and Kanwate, 2010). The earlier reports on avifaunal diversity are on specific habitats covering the minor area either a small pond or a few bird sighting points along Godavari River, hence there is no fulfil record of avifaunal diversity in all sense. Hence to re-observe the reported places of avian biodiversity and further qualitative and quantitative evaluation of habitats was essential. The avifaunal diversity study is one of the essential parameter to determine the habitat ecology (Bilgrami, 1995). In Nanded region of Maharashtra it was observed that the Black neck Ibis, Painted Storks, Spoon Bill and Woolly/White neck black stork flocking in large number near most Polluted water regions in Godavari river as compared to their gathering in the clean and non-polluted

water bodies of parts of Godavari river and isolated minor water bodies in Godavari river basin. Therefore to correlate the occurrence of birds to the quality of habitat water has opened a new dimension in the ornithological investigation.

There are about 10,000 species of birds in the world. India harbours 1318 species of which 57 are endemic, 03 breeding endemic and 85 species are threatened (TH) (Birdlife International, 2014). AVIBASE (2015) reported the existence of 616 species of birds in Maharashtra State of which 33 are threatened (TH) and 01 is introduced species (Birdlife International, 2010). To prepare annotated checklist with all possible details of sighted birds was main objective of this study. Therefore first time the checklist of birds from Nanded region with their authority name, year of first report i.e. discovery year of the species, ecological status, population status and IUCN status of birds from this region are reported. It will be an important avifaunal data-base for avifaunal diversity and taxonomic studies. 90 photographs of sighted birds (Fig. 1 - 90) also first time reported from this region through this report.

Materials and Methods

Study area

Avifaunal diversity study was conducted at 07 different habitats along 169 km. length of Godavari River and water bodies near Nanded city in 80 km² area. The details of habitats studied for avifauna are given in Table- 1 and Fig. 91. The study was conducted during June 2012 - April, 2015.

Methodology

Birds were sighted at the study place by walking along 167 km. length of river

Godavari from Purna town where river Purna merge in to Godavari river at Kantheshwar village to Basar town where the river Manjeera (Manjara) mix to river Godavari. NIKON - 510 model digital camera with autofocus and auto inbuilt zoom, 46 X extra zoom 16.6 Mega Pixel was used for photo and video recording of sighted birds. A tripod stand (BENRO Model) was used to fix the camera during still and video photography to avoid shaking impact and to get clear images.

Avifaunal field guidebooks (Kazmierczak et. al., 2003; Grimmett et. al., 2011) and Internet Birds database were used for the identification of birds. The photo sampling was done between 6.30 to 11.00 hrs. and 16.30 to 18.30 hrs. during summer and winter season. Data was not collected during rainy season and harsh windy weather. Total 13 points on river Godavari and 18 points on 06 water bodies in Godavari river basin were studied. On each day 1-2 points were covered for observations. Therefore each point was visited for 3-6 hr. stay (Buckland et. al., 2001; Burnham, 1980). No any bird specimen was collected, only photo and video with audio were prepared for the reference in the study duration. The study was conducted by following the bird census techniques (Bibby et. al., 2000). The population status of observed bird species was recorded as per ACOR rating (Buckland et. al., 1983). ACOR indicates A= Abundant meaning those species which were sighted in many numbers during all transect survey's; C = Common birds means those species which were sighted in good number; O = Occasional being those species which were sighted in low numbers and R = Rare meaning those species which were sighted in very low numbers throughout study period. The checklist of bird species is prepared by following the guidelines for checklist of birds (Abdulali, 1981; Ali and Replay,

1983). The ecological status of birds are categorized as Migrant (M), Winter (W), Resident (R), Common (C), Uncommon (U), Rare (r), Breeding (B), Summer (S), Passage (P). The combination of the short forms are written as per the ecological status of the observed bird species as WM = Winter Migrant, Rr = Resident rare etc. The avifauna was also categorized as per the IUCN status as LC = species which are Least Concern; NT = Near Threatened, VU = Vulnerable, T = Threatened species, EN = Endangered, CR = critically endangered, EX = Extinct. Whereas in the present study majority species were of LC status according to IUCN norms and no species was found from EN and CR category. For enlisting common English name of birds the Standardized English and Scientific names of Birds from Indian subcontinent (Manakadan and Pittie, 2004) was used.

Results and Discussion

In the present avifaunal diversity investigation various habitats especially the water bodies, hilly areas around the water bodies, river Godavari and its tributaries were observed for sighting the birds. 168 species of birds from 53 different families and 15 orders were recorded during the study. Maximum 73 species of birds were recorded from Order Passeriformes followed by 18 species in Ciconiformes, 14 in Ansariformes and 12 avian species in Charadriiformes, further details of distribution in other families are as shown in fig. 94. At Jarikot pond (Table 1., Fig. 93.) highest 41.1 % of species were sighted while 18.3 % of the total reported bird species were observed at Vishnupuri Dam. As per ACOR rating only 07 species were abundant (A), 54 common (C), 59 occasional (O) and 48 species were rare (R). According to IUCN categorization 160 species were Least Concern (LC), 05 Near Threatened (NT) and

01 species from each Threatened (T), vulnerable (VU) and critically endangered (CR) category. No any bird species from endangered (EN) category was sighted at any selected bird habitat. Similarly, there is no report of any species of bird which has been extinct from this region in recent time. From the sighted birds their current ecological status as per observation during study period is mentioned in the checklist (Table 2.). The standardized common names are also listed by following Mankadan and Pittie (2004) and Internet Birds Data base (2015). Kulkarni (2005), Kulkarni et. al. (2006 (a), 2006 (b), 2006 (c)) had reported the occurrence of few bird species under NT, T and CR categories of IUCN; from these bird species which are not sighted in the present investigation are marked with * and suggested to re-evaluate their occurrence. White bellied Heron (*Ardea insignis*) is categorized as critically endangered (CR), Black Stork (*Ciconia nigra*) as a threatened (T) species of stork originally inhabiting from African countries like Kenya, Ghana, Sudan was reported as winter migrant threatened species visiting Nanded region (Kulkarni et. al., 2005) but in the present study we didn't found this species of stork at any selected centre for avifaunal study. Painted stork (*Mycteria leucocephala*) was sighted at all the selected habitats in large number as compared to all other reported stork species. In a village pond at Jarikot (Fig. 93, Table 1.) Taluka Dharmabad 186 Painted storks were observed feeding in shallow water during late March, 2015 at evening time 18.30 hrs. and early morning 6.00 to 7.00 hrs. They were simultaneously using their long bill and one foot for tacto-locating the bivalve species of Mollusc in the shallow water of 15-25 cm. depth as their common mode of foraging in pond water (Urfi, 2011). Black neck stork (*Ephipporhynchus asiaticus*) is also a species of stork under NT status was

observed searching food with black headed Ibis or oriental white Ibis (*Threskiornis melanocephalus*) was also under NT status at river Godavari near over bridge of Govardhan Ghat, Nanded. Marbled teal (*Maronetta anguistrostris*) and White neck Tit (*Varus nuchalis*) were observed which are under the vulnerable (VU) category of IUCN status. Kulkarni (2005) reported the occurrence of black stork (*Ciconia nigra*) from Nanded region, it is under the threatened (T) category of IUCN status but it was not found at any observation point of the selected habitats. Hence need to undertake special study for these important migrants from Ethiopia, Kenya and Ghana. Another species under NT category was river tern (*Sterna aurentia*) sighted at river Godavari near Cherli bridge, Jarikot Ta. Dharmabad (Table -1) during entire observation period the tern species was flying close to stagnant water pool in river for a while and resting by sitting in coastal sand along with whistling ducks, common terns and common egrets. Presence of these tern species is a new record of this investigation. Darter species (*Anhinga melanogaster*) is also reported for the first time from this region which is under near threatened (NT) category. It is first documentation of birds with their details and first report of sighting high number of birds in the selected study area as compared to earlier studies by various researchers and bird watchers. The typical features of this investigation is 90 photo plates of reported birds in the checklist with their common English names and zoological names on each photo-plate are reported first time. This kind of photographic representation was not found in the previous publications therefore the present study is more scientific and supports the presence of enlisted avifauna in the selected study area. But still there is a need of more surveys and observation to produce photographic evidences for few

enlisted bird species in this report which are marked by * Mark in the checklist. The presence of the enlisted birds was supported by earlier records by Kulkarni et. al. (2005) and Balkhande et. al. (2012, 2013, 2014). In the present checklist, first time the IUCN status along with the ecological and population status is reported.

A very few researchers have contributed in listing the bird species from Nanded region. Kulkarni et. al. (2005) had extensively studied the birds in and around Nanded city and enlisted with their categorization and ACOR rating for abundance. Kulkarni et. al. (2005) reported 151 species of birds belonging to 44 families and 16 orders and tabulated the data with details of common English names and scientific names. The ACOR type of status and ecological categorization was also reported. Kulkarni (2005) reported the occurrence of birds in Nanded city at Science College, at river Godavari near Shikhachi wadi, Derla pond (15 km. South west on Nanded - Latur highway near S. R. T. M. University, Nanded) and Sitakhandi. The present investigation on avifaunal diversity is more extensive and covered following eleven different places. The details of bird habitat observed for avian diversity are given in Table 1.

The habitats selected in the present investigation were different from those selected by Kulkarni et. al. (2005) but majority habitats was in the same geographical region in and around Nanded city. Presence of Greater flamingo (*Phoenicopterus ruber*) in four number at Derla Pond were sighted, they were feeding during evening time with Eurasian spoonbill (*Platalea leucorodia*). Kulkarni et. al. (2005) specially reported that, the vultures and flamingo were not sighted during his Study. Similar situation and results of

occurrence of more number of birds was observed during winter and summer in the present investigation. He observed White bellied heron, Asian Paradise Flycatcher, Pied crested Cuckoo in very less number while these birds were not found in the study area. The winter migrant comb duck was sighted by kulkarni et al. (2005) at Sikhachi wadi near Nanded on the river Godavari and Pheasant tailed jacana was sighted at Derla pond, he also claimed to observe threatened (T) Black stork (*Ciconia nigra*) at Shishachi wadi. These reported birds were not sighted at the selected study areas in the present investigation. Kosambe and Wadatkar (2007) observed the birds of Pohara-Malkhed reserve forest Amravati, MS and provided an updated annotated checklist of avifauna from this region. Their observations were from 80 km² area. 171 bird species from 56 families were reported which mostly include forest birds. The occurrence of lesser flamingo, greater flamingo was reported but no photographic evidence was found.

Balkhande et. al. (2012) enlisted 53 species of birds belonging to 32 families at river Godavari at Dhangar Takli. This observation was localized at a specific small selected site. At the same habitat we also made the observations during the present study to take the review of occurrence of reported bird species. Balkhande et. al (2012) also reported the occurrence of threatened (T) black stork species (*Ciconia nigra*) but without any data on details like number of birds and the photographic evidence. In the present study this stork species was not sighted. When the bird studies in other parts of Maharashtra were reviewed then it was observed that a very few people are working in this area of research for scientific report of birds. Chilke (2012) reported 58 bird species from 29 families and 09 orders as a local study from a small size minor lake

named Bamanwada lake at Rajura District Chandrapur, MS which highlighted the need of conservation of bird habitat from this area as one of the third most air polluted area due to presence of thermal power plant and coal mines in large number in this region. Chilke (2012) reported the photographs of a few bird species which he has enlisted. He has provided a Google Map image of study area which was found little different and advanced way of presenting the data, this type of satellite map was not provided by earlier investigators on avifaunal diversity from this region and Nanded region. In the present avifaunal studies the Google Map images of few habitats are given (Figure 91, 92, 93).

Balkhande et. al. (2013) studied the avifauna of Jagatung Sagar at Kandhar Dist. Nanded, MS. The selected study area has a small water body named Jagatung Sagar, the exact dimensions of this lake are not given. As per recent observations, during summer season the pond get dried each year in recent time due to siltation and decrease in depth. Scanty rainfall in a year may be another routine cause of drying this pond during summer season. 48 species of birds belonging to 30 families in a checklist are reported. In this report also lacks the photographs of reported birds though the use of SONY Cyber-shot Camera was reported used during this study. It was similar kind of study by the same author in year 2012 for observation of avifaunal difference in assemblage during dry period and after filling the pond.

Abdar (2014) observed the assemblage of water bird species in Ramling Island a religious place in Western Maharashtra and reported 47 species of water birds and concluded that there is decrease in water birds in Western Ghats. Decreased rainfall, increasing anthropogenic activities, surface

water and running water pollution are major disturbing activities for decrease in the avifauna from Western Ghats region was reported. In the present investigation water pollution, anthropogenic activities of stone mining and silt excavation, fishing, over pumping of water for agriculture, sand dredging and trapping of water birds specially white breasted water hen were observed in the selected study area. It was observed that nearby Derla Pond there were stone mine activities during entire period of birding and observed that Greater Flamingo found disturbed due to loud blasting noise of stone mine and they never return to the place till 01 month.

Prasad et. al., (2014) extensively studied the avifaunal diversity of Manjeera Wildlife Sanctuary, Andhra Pradesh, India. He reported the occurrence of 164 species of birds belonging to 53 different families. It was an avifaunal diversity study from a different kind of habitat that include part of Manjeera river (Tributary of Godavari river), Manjeera reservoir and the typical scrub forest around. The speciality of this investigation was that the authors tried to report maximum photographs and published in colour formats hence it gives a clear idea about the bird species; especially it is an important data to refer for the newly introduced ornithologists in the avifaunal diversity studies. The present investigation is also from Godavari river basin and more or less match with many birds reported by Prasad et. al., (2014). As compared to investigation by other researchers the avifaunal report by Prasad is more detailed and more scientific due to enclosing the photographs of bird species in support to the checklist. He has also applied the Simpson's Index and Index of Diversity, Shannon's Index, Evenness Index and equitability Index.

Table.1 Habitats selected for observation of birds in Nanded area, Maharashtra State, India

Sr. No.	Bird Habitat	Area/ Length	No. Of obs. points	Coordinates
1.	Jarikot Pond, Near Dharmabad, Dist. Nanded	10 ha.	03	18 ⁰ 53' 40" N 77 ⁰ 43' 40" E
2.	Cherli Bridge, Jarikot	01 Km.	02	18 ⁰ 52' 13" N 77 ⁰ 45' 53" E
3.	Takalgaon Pond, Near Nanded	25 ha.	05	19 ⁰ 03' 41" N 77 ⁰ 20' 03" E
4.	Derla Pond, Near Nanded	28 ha.	04	19 ⁰ 01' 03" N 77 ⁰ 16' 04" E
5.	SRTM University Pond, Nanded	07 ha.	04	19 ⁰ 06' 24" N 77 ⁰ 18' 01" E
6.	Sonkhed Pond, Nanded	07 ha.	02	19 ⁰ 01' 51" N 77 ⁰ 12' 41" E
7.	Pimpri Pond, Udgir	28 ha.	04	18 ⁰ 24' 02" N 77 ⁰ 08' 09" E
8.	Vishnupuri Dam, Nanded	12 km	06	19 ⁰ 06' 48" N 77 ⁰ 17' 03" E
9.	Godavari bridge –I Near SP Office Nanded	02 km.	02	19 ⁰ 08' 51" N 77 ⁰ 20' 03" E
10.	Godavari Bridge- II, Mondha, Nanded	01 km.	02	19 ⁰ 08' 20" N 77 ⁰ 19' 03" E
11.	Nanded Agri. College, Nanded	01 km.	03	19 ⁰ 10' 43" N 77 ⁰ 17' 47" E

(No. = Number, Obs.= Observations)

Table.2 Checklist of Bird species reported from Nanded area, Maharashtra State, India

Sr. No.	Order, Family, Common Name	Zoological Name, Authority	Population, IUCN status	Ecological Status
1]	Podicipediformes 1.Podicipidae 1.Little Grebe	<i>Tachybaptus ruficollis</i> (Pallas, 1764)	C (LC)	MC
2]	Ciconiformes 2.Ardeidae 2.Grey Heron	<i>Ardea cinerea</i> (Linnaeus, 1758)	C (LC)	MU
	3.Indian Pond Heron	<i>Ardeola grayii</i> (Sykes, 1832)	A (LC)	RC
	4. Cattle Egret	<i>Bubulcus ibis</i> (Linnaeus, 1758)	A (LC)	RM
	5.Little Egret	<i>Egretta garzetta</i> (Linnaeus, 1766)	C (LC)	RM
	6.Median Egret	<i>Mesophoyx intermedia</i> (Wagler, 1829)	A (LC)	RM
	7.Large Egret	<i>Casmerodius albus</i> (Linnaeus, 1758)	O (LC)	Mr
	8.Purple Heron	<i>Ardea purpurea</i> (Linnaeus, 1766)	R (LC)	Mr
	9.White Bellied Heron	<i>Ardea insignis</i> (Hume, 1878)	R (CR)	Mr
	10.Night Heron	<i>Nycticorax nycticorax</i> (Linnaeus, 1758)	C (LC)	Rr

	3. Ciconidae			
	11. Painted Stork	<i>Mycteria leucocephala</i> (Pennant, 1769)	C (NT)	MC
	12. Asian Open bill Stork	<i>Anastomus oscitans</i> (Boddaert, 1783)	R(LC)	Mr
	13. Black Necked Stork	<i>Ephippiorhynchus asiaticus</i> (Linn.,1790)	R (NT)	WMr
	14. White Necked/Wooly Stork	<i>Ciconia episcopus</i> (Boddaert, 1783)	O (LC)	WMr
	15. *Black Stork	<i>Ciconia nigra</i> (Linnaeus, 1758)	R (T)	WMr
	4. Threskiornithidae			
	16. Oriental White/Black Head Ibis	<i>Threskiornis melanocephalus</i> (Latham, 1790)	R(NT)	MU
	17. Indian Black Ibis	<i>Pseudibis papillosa</i> (Temminck, 1824)	R (LC)	MU
	18. *Glossy Ibis	<i>Plegadis falcinellus</i> (Linnaeus, 1766)	C (LC)	MC
	19. Euresion Spoonbill	<i>Platalea leucorodia</i> (Linnaeus, 1758)	C (LC)	WMU
3]	Phoenicopteriformes			
	5. Phoenicopteridae			
	20. Greater Flamingo	<i>Phoenicopterus ruber</i> (Linnaeus, 1758)	R (LC)	WMr
4]	Ansariformes			
	6. Anatidae			
	21. Bar Headed Goose	<i>Ansar indicus</i> (Latham, 1790)	O (LC)	WMr
	22. Lesser Whistling Duck	<i>Dendrocygna javanica</i> (Horsfield, 1821)	C (LC)	WMC
	23. Brahminy/Ruddy-Shellduck	<i>Tadorna ferruginea</i> (Pallas, 1764)	M (LC)	WMC
	24. Euresian Wigeon	<i>Anas penelope</i> (Linnaeus, 1758)	C (LC)	WMU
	25. Northern Pintail	<i>Anas acuta</i> (Linnaeus, 1758)	C (LC)	MU
	26. Spot Billed Duck	<i>Anas poicillorhyncha</i> (Forster JR,1781)	C (LC)	RMC
	27. Northern Shoveller	<i>Anas clypeata</i> (Linnaeus, 1758)	O (LC)	WMU
	28. Garganey	<i>Spatula querquedula</i> (Linnaeus, 1758)	O (LC)	WMU
	29. * Red Crested Pochard	<i>Netta rufina</i> (Pallas, 1773)	O (LC)	WMr
	30. * Common Pochard	<i>Aythya farina</i> (Linnaeus, 1758)	O (LC)	WMr
	31. * Tufted Pochard	<i>Aythya fuligula</i> (Linnaeus, 1758)	O (LC)	WMr
	32. Cotton/Pigmy Goose	<i>Netapus coromandalianus</i> (Gmelin J F, 1789)	O (LC)	WMr
	33. Comb Duck	<i>Sarkiaornis melanotos</i> (Pennant, 1789)	O (LC)	RMU
	34. Marbled teal	<i>Marmaronetta angustirostris</i> (Pennant, 1789)	R (LC)	RMr
5]	Falconiformes			
	7. Accipitridae			
	35. Black Shouldered Kite	<i>Elanus caeruleus</i> (Desfontaines, 1789)	C (LC)	Rr
	36. Black Kite	<i>Malvus migrans</i> (Boddaert, 1783)	C (LC)	RU
	37. Brahminy kite	<i>Haliastur indus</i> (Boddaert, 1783)	R (LC)	Rr
	38. Shikra	<i>Accipiter badius</i> (Gmelin, 1788)	R (LC)	Rr
	39. Long legged Buzzard	<i>Buleo rufinus</i> (Cretzschmar, 1827)	R (LC)	RMr
	40. Besra Sparrow Hawk	<i>Accipiter virgatus</i> (Temminck, 1822)	R (LC)	Rr
	41. * White Eyed Buzzard	<i>Bulastur teesa</i> (Franklin, 1831)	R (LC)	RMr
	42. African Cuckoo – Hawk/African Baza/Cuckoo-Falcon	<i>Aviceda cuculoides</i> (Swainson, 1837)	R (LC)	BWMr
	8. Falconidae			

	43. Pregrine Falcon	<i>Falco peregrinus</i> (Tunstall, 1771)	R (LC)	Mr
6]	Gruiformes			
	9. Gruidae			
	44. * Demoiselle Crane	<i>Antropoides virgo</i> (Linnaeus, 1758)	O (LC)	Mr
	10. Phasinidae			
	45. Indian Peafowl	<i>Pavo cristatus</i> (Linnaeus, 1758)	A (LC)	RC
	46. Gray Francolin	<i>Francolinus pondicerianus</i> (Linnaeus, 1766)	C (LC)	RC
	11. Rallidae			
	47. Common Coot	<i>Fulica atra</i> (Linnaeus, 1758)	C (LC)	RC
	48. White Breasted Waterhen	<i>Amauromis phoenicurus</i> (Pennant, 1769)		
	49. Purple Moorhen	<i>Porphyrio porphyrio</i> (Linnaeus, 1758)	O (LC)	RC
	50. Common Moorhen	<i>Gallinula chloropus</i> (Linnaeus, 1758)	R (LC)	RMC
7]	Pelecaniformes			
	12. Phalacrocoracidae			
	51. Indian Shag/Cormorant	<i>Phalacrocorax fuscicollis</i> (Stephans, 1826)	R (LC)	RMU
	52. Little Cormorant	<i>Phalacrocorax niger</i> (Vieillot, 1817)	A (LC)	RMC
	53. Greater Cormorant	<i>Phalacrocorax carbo</i> (Vieillot, 1817)	R (LC)	RMU
	13. Anhingidae			
	54. Darter	<i>Anhinga melanogaster</i> (Pennant, 1769)	R (NT)	RU
8]	Charadriformes			
	14. Recurvirostridae			
	55. Black Winged Stilt	<i>Himantopus himantopus</i> (Linnaeus, 1758)	A (LC)	WMC
	15. Charadriidae			
	56. Red Watted Lapwing	<i>Venellus indicus</i> (Linnaeus, 1758)	C (LC)	RC
	57. Yellow Watted Lapwing	<i>Venellus mulbaricus</i> (Linnaeus, 1758)	O (LC)	RU
	58. Little ringed plover	<i>Charadrius dubius</i> (Scopoli, 1786)	C (LC)	WMU
	16. Scolopacidae			
	59. Common Sandpiper	<i>Actitis hypoleucos</i> (Linnaeus, 1758)	C (LC)	WMU
	60. Curlew Sandpiper	<i>Calidris ferruginea</i> (Pontappin, 1763)	R (LC)	WMU
	61. Terek sandpiper	<i>Xenus cinereus</i> (Guldenstadt, 1774)	R (LC)	WMU
	62. Wood Sandpiper	<i>Tringa glareola</i> (Linnaeus, 1758)	O (LC)	WMU
	63. Marsh Sandpiper	<i>Tringa stagnalis</i> (Bechstain, 1803)	O (LC)	WMU
	17. Sternidae			
	64. River Tern	<i>Sterna aurantia</i> (J. E. Gray, 1831)	R (NT)	RMU
	65. Common Tern	<i>Sterna hirundo</i> (Linnaeus, 1758)	C (LC)	WMC
	66. Little Tern	<i>Sterna albifrons</i> (Pallas, 1764)	R (LC)	WMC
9]	Columbiformes			
	18. Pteroclididae			
	67. * Chest-nut-bellied Sandgrouse	<i>Pterocles excustus</i>	R (LC)	Rr
	19. Columbidae			

	68. Blue Rock Pigeon/Dove	<i>Columba livia</i> (J. F. Gmelin, 1789)	C (LC)	RC
	69. Eurasian Collared Dove	<i>Streptopelia decaocto</i> (Frivaldszky, 1838)	C (LC)	RC
	70. Spotted Dove	<i>Streptopelis chinensis</i> (Scopoli, 1786)	O (LC)	RU
	71. Laughing Dove	<i>Streptopelia senegalensis</i> (Linnaeus, 1766)	C (LC)	RU
	72. Oriental turtle Dove	<i>Streptopelia orientalis</i> (Latham, 1790)	R (LC)	RMC
	73. Red Turtle Dove	<i>Streptopelia tranquebarica</i> (Harmann, 1804)	R (LC)	RMC
	74. * Yellow legged green Pigeon	<i>Treron phoenicoptera</i> (Latham, 1790)	R (LC)	Rr
10]	Psittaciformes 20. Psittacidae			
	75. Rose Ringed Parakeet	<i>Psittacula krameri</i> (Scopoli, 1769)	O (LC)	RC
	76. Blossom Headed parakeet	<i>Psittacula roseate</i> (Biswas, 1952)	C (LC)	RC
	21. Cuculiformes			
	77. * Pied Crested Cuckoo	<i>Clamator jacobinus</i> (Baddaert, 1783)	O (LC)	BMr
	78. Common koel	<i>Eudynamis scolopacea</i> (Linnaeus, 1758)	C (LC)	RC
	79. Brain Fever Bird	<i>Hierococyx varius</i>	C (LC)	BMU
	80. Greater Coucal	<i>Centropus sinensis</i> (Stephens, 1815)	O (LC)	RU
	81. Common Cuckoo	<i>Cuculus canorus</i> (Linnaeus, 1758)	R (LC)	RC
11]	Stigiformes 22. Strigidae			
	82. Eurasian Scops Owl	<i>Otus scops</i> (Linnaeus, 1758)	R (LC)	RMr
	83. Spotted Owlet	<i>Athene brama</i> (Temminck, 1821)	C (LC)	RC
12]	Apodiformes 23. Apodidae			
	84. Little Swift	<i>Apus affinis</i> (J. E. Grey, 1830)	C (LC)	RMr
	85. Common Swift	<i>Apus apus</i> (Linnaeus, 1758)	C (LC)	Rr
	86. White Collared Swift	<i>Streptoprocne zonaris</i> (Shaw, 1796)	R (LC)	SMr
13]	Coraciiformes 24. Alcedinidae			
	87. Lesser Pied Kingfisher	<i>Ceryle rudis</i> (Linnaeus, 1758)	C (LC)	RU
	88. * Blue eared Kingfisher	<i>Alcedo meninting</i> (Horsfield, 1821)	R (LC)	RU
	89. Common Kingfisher	<i>Alcedo atthis</i> (Linnaeus, 1758)	C (LC)	RU
	90. White Breasted Kingfisher	<i>Halcyon smyrnensis</i> (Linnaeus, 1758)	C (LC)	RU
	25. Meropidae			
	91. Little Green Bee eater	<i>Merops orientalis</i> (Latham, 1801)	C (LC)	RMC
	92. Blue tail Beater	<i>Merops phillippinus</i> (Linnaeus, 1766)	C (LC)	RMU
	26. Coraciidae			
	93. Indian Roller	<i>Coracias benghalensis</i> (Linnaeus, 1758)	O (LC)	Rr

	27. Upupidae			
	94. Common hoopoe	<i>Upupa epops</i> (Linnaeus, 1758)	R (LC)	RMU
	28. Bucerotidae			
	95. Indian Gray Hornbill	<i>Ocyrceros birostris</i> (Scopoli, 1786)	R (LC)	Rr
14]	Piciformes			
	29. Capitonidae			
	96. Coppersmith barbet	<i>Megalanima haemacephala</i> (P. L. S. Muller, 1776)	O (LC)	Rr
	30. Picidae			
	97. *White napped Woodpecker	<i>Chrysocolaptes festive</i> (Boddaert, 1783)	O (LC)	Rr
15]	Passeriformes			
	31. Alaudidae			
	98. Rufous tailed Finch lark	<i>Ammomanes phoenicura</i> (Franklin, 1831)	C (LC)	RU
	99. Greater short toed Lark	<i>Calandrella brachydactyla</i> (Leisler, 1814)	O (LC)	RU
	100. Sand Lark	<i>Calandrella raytal</i> (Blyth, 1845)	O (LC)	Rr
	101. Black crown sparrow lark	<i>Eremopterix nigriceps</i> (Gould, 1839)	O (LC)	RU
	102. Bengal Bush Lark	<i>Mirafra assamica</i> (Horsfield, 1840)	O (LC)	WMU
	103. Eurasian sky lark	<i>Alauda arvensis</i> (Linnaeus, 1758)	O (LC)	WMU
	104. Ashy crown sparrow Lark	<i>Eremopteryx grisea</i>	O (LC)	WMU
	32. Hirundinidae			
	105. Wire tailed Swallow	<i>Hirundo smithii</i> (Leach, 1818)	O (LC)	WMr
	106. Common/Barn Swallow	<i>Hirundo rustica</i> (Linnaeus, 1758)	O (LC)	RMC
	107. Pacific Swallow	<i>Hirundo tahitica</i> (Gmelin, 1789)	O (LC)	WMr
	108. Red Rumped Swallow	<i>Cecropes daurica</i> (Laxmann, 1769)	O (LC)	RMC
	109. Dusky crag Martin	<i>Ptyonoprogne concolor</i> (Sykes, 1832)	O (LC)	RU
	110. * Streak throated Swallow	<i>Petrochelidon fluvicola</i> (Blyth, 1855)	C	RU
	33. Dicruridae			
	111. Black Drongo	<i>Dicrurus macrocercus</i> (Vieillot, 1817)	C (LC)	RC
	112. White Bellied Drongo	<i>Dicrurus caeruleus</i> (Linnaeus, 1758)	O (LC)	RU
	113. Crow Billed Drongo	<i>Dicrurus annectans</i> (Hodgson, 1836)	O (LC)	MU
	34. Laniidae			
	114. Great Gray Shrike	<i>Lanius excubitor</i> (Linnaeus, 1758)	O (LC)	WMU
	115. Bayback Shrike	<i>Lanius vittatus</i> (Valenciennes, 1826)	O (LC)	WMU
	116. Longtailed/Rfous-back Shrike	<i>Lanius schach</i> (Linnaeus, 1758)	O (LC)	WMU
	35. Sturnidae			
	117. Common Myna	<i>Acredotheres tristis</i> (Linnaeus, 1766)	C (LC)	RC
	118. Brahminy Starling	<i>Sturnia pagodarum</i> (J F Gmelin, 1789)	C (LC)	RC
	119. Asian Pied Starling	<i>Sturnia pagodarum</i> (J F Gmelin, 1789)	C (LC)	RC
	36. Corvidae			
















	120.Indian/Rufous Treepie	<i>Dendrocitta vagabunda</i> (Latham, 1790)	A (LC)	RU
	121.House Crow	<i>Corvus splendens</i> (Vieillot, 1817)	O (LC)	RC
	122.Large Billed/Jungle Crow	<i>Corvus macrorhynchos</i> (Wagler, 1827)	O (LC)	RU
	37. Irenidae			
	123.Asian Fairy Bluebird	<i>Irena puella</i> (Latham, 1790)	O (LC)	RU
	38. Chloropseidae			
	124.* Gold Fronted Chloropsis	<i>Chloropsis aurifrons</i> (Temminck, 1829)	O (LC)	Rr
	39. Pycnonotidae			
	125. Red-Vented Bulbul	<i>Pycnonotus cafer</i> (Linnaeus, 1766)	C (LC)	RC
	126. Black Bulbul	<i>Hypsipetes leucocephalus</i> (JF Gmelin, 1789)	O (LC)	WMr
	127. Black headed bulbul	<i>Pycnonotus atriceps</i> (Temminck, 1822)	O (LC)	SMC
	40. Timaliidae			
	128. Large Grey Babbler	<i>Turdoides malcolmi</i> (Sykes, 1832)	C (LC)	RC
	129. Jungle Babbler	<i>Turdoides striatus</i> (Dumont de Sainte Croix, 1823)	C (LC)	RC
	130. Yellow Eyed Babbler	<i>Chrysomma sinense</i> (Gmelin, 1789)	O (LC)	Rr
	131. Pin Stripped Tit/Yellow Breasted Babbler	<i>Macronus gularis</i> (Horsfield, 1822)	O (LC)	WMr
	41. Tyrannidae			
	132. Little pied Flycatcher	<i>Ficedula westermanni</i> (Sharpe, 1888)	C (LC)	Rr
	133. Asian Brown Flycatcher	<i>Muscicapa dauurica</i> (Pallas, 1811)	C (LC)	Rr
	42. Monarchinae			
	134. Asian Paradise Flycatcher	<i>Terpsiphone paradise</i> (Linnaeus, 1758)	O (LC)	RMr
	43. Sylviinae			
	134.Asian Paradise Flycatcher	<i>Terpsiphone paradise</i> (Linnaeus, 1758)	O (LC)	RMr
	43. Sylviinae			
	135. Plain Prinia	<i>Prinia inornata</i> (Sykes, 1832)	O (LC)	RU
	136. Ashy Wren Prinia/ Warbler	<i>Prinia socialis</i> (Sykes, 1832)	O (LC)	RC
	137. Jungle Prinia	<i>Prinia sylvatica</i> (Jerdon, 1840)	O (LC)	RU
	138. Rufus fronted Prinia	<i>Prinia buchanani</i> (Blyth, 1844)	O (LC)	RU
	139. Common Tailor Bird	<i>Orthotomus sutorius</i> (Pennant, 1769)	O (LC)	Rr
	140. Thick billed Warbler	<i>Acrocephalus aedon</i> (Pallas, 1776)	O (LC)	Mr
	44. Turdinae			
	141. Indian Robin	<i>Saxicoloides fulicata</i> (Linnaeus, 1776)	C (LC)	RU
	142. Indian Chat	<i>Cercomela fusca</i>	C (LC)	RU
	143. Oriental Magpie Robin	<i>Copsychus saularis</i> (Linnaeus, 1758)	C (LC)	RC
















	45. Parida			
	144.Great Tit	<i>Parus major</i> (Linnaeus, 1758)	R (LC)	Rr
	145.White Napped Tit	<i>Parus nuchalis</i> (Jerdon, 1845)	R (VU)	Rr
	46. Motacillidae			
	146.Oriental Tree Pipit/ Olive Backed Pipit	<i>Anthus hodgsoni</i> (Richmond, 1909)	R (LC)	RMr
	147.Yellow wagtail	<i>Motacilla flava</i> (Linnaeus, 1758)	C (LC)	WM
	148.Grey Wagtail	<i>Motacilla cinerea</i> (Tunstal, 1771)	R (LC)	Mr
	149.White browed wagtail	<i>Motacilla aderspatensis</i> (J F, Gmelin, 1789)	R (LC)	RM
	150.White Wagtail	<i>Motacilla alba</i> (Linnaeus, 1758) (J F, Gmelin, 1789)	R (LC)	MU
	151.Forest wagtail	<i>Dendronanthus indicus</i> (Gmelin, 1789)	C (LC)	RM
	152.Paddy Field Pipit	<i>Anthus rufulus</i> (Vieillot, 1818)	R (LC)	WMr
	47. Nectariniidae			
	153.Purple Rumped sunbird	<i>Leptocoma zeylonica</i> (Linnaeus, 1766)	R (LC)	RU
	154.Crimson Backed/ Purple Sunbird	<i>Nectarina minima</i> (Sykes, 1832)	C (LC)	RU
	48. Zosteropidae			
	155.Oriental White –Eye	<i>Zosterops palpebrosus</i> (Temminck, 1824)	R (LC)	RU
	49. Passeridae			
	156.House Sparrow	<i>Passer domesticus</i> (Linnaeus, 1758)	C (LC)	RC
	50. Emberizidae			
	157.Lark Bunting	<i>Calamospiza melanocoryx</i> (Steigner, 1885)	O (LC)	SMC
	51. Ploceidae			
	158.Baya weaver	<i>Ploceus philippinus</i> (Linnaeus, 1766)	O (LC)	RC
	159.Streaked Weaver	<i>Ploceus manyar</i> (Horsfield, 1821)	O (LC)	RC
	52. Estrildidae			
	160.White throated Munia	<i>Lonchura malabarica</i> (Linnaeus, 1758)	O (LC)	RC
	161.Scaly Breasted Spotted Munia	<i>Lonchura punctulata</i> (Linnaeus., 1758)	O (LC)	RC
	162.Black Throated Munia	<i>Lonchura kelaarti</i> (Jerdon, 1863)	R (LC)	RU
	163.Red Munia/Amandava	<i>Amandava amandava</i> (Linnaeus, 1758)	C (LC)	WM
	164. Chestnut Munia	<i>Lonchura atricapila</i> (Vieillot, 1807)	C (LC)	WMC
	53. Campephagidae			
	165.Rosy minivet	<i>Pericrotus roseus</i> (Vieillot, 1618)	R (LC)	WMr
	166.Scarlet minivet	<i>Pericrocotus plammeus</i> (Forster, 1781)	R (LC)	Rr
	167.Bar winged Flycatcher Shrike	<i>Hemipus picatus</i> (Sykes, 1832)	R (LC)	Rr
	168. Common Wood Shrike	<i>Tephrodornis pondicerianus</i> (J. F., Gmelin, 1789)	R (LC)	RU













(Abbreviation in ACOR are A = Abundant, C = Common, O=Occasional, r = Rare), (Abbreviation used for Ecological rating and status are WM = Winter Migrant, RU = Resident Uncommon, Rr = Resident Rare, RC = Resident Common, BM= Breeding Migrant, PM = Passage Migrant,). (* Birds need to be photographed), (IUCN Status – NT = Nearly Threatened, T = Threatened. IUCN Status – LC= Least Concern, NT = Near Threatened, T = Threatened, V = Vulnerable, EN = Endangered, CR = Critically Endangered).













		
<p>Figure 1. Little Grebe (<i>Tachybaptus ruficollis</i>)</p>	<p>Figure 2. Grey Heron (<i>Ardea cinerea</i>)</p>	<p>Figure-3. Indian Pond Heron (<i>Ardeola grayii</i>)</p>
		
<p>Figure 4. Cattle Egret (<i>Bubulcus ibis</i>)</p>	<p>Figure 5. Little Egret (<i>Egretta garzetta</i>)</p>	<p>Figure 6. Large Egret (<i>Casmerodius albus</i>)</p>
		
<p>Figure 7. Median Egret (<i>Mesophoyx intermedia</i>)</p>	<p>Figure 8. Purple Heron (<i>Ardea purpurea</i>)</p>	<p>Figure 9. Painted Stork (<i>Mycteria leucocephala</i>)</p>
		
<p>Figure 10. Asian Open bill Stork (<i>Anastomus oscitans</i>)</p>	<p>Figure 11. White Necked/Woolly Stork (<i>Ciconia episcopus</i>)</p>	<p>Figure 12. Oriental White/Black Head Ibis (<i>Threskiornis melanocephalus</i>)</p>













 <p>Indian Black Ibis <i>Pseudibis papillosa</i> PROF. CHAVAN S. P., ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>	 <p>Euresion Spoonbill <i>Platalea leucorodia</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>	 <p>Greater Flamingo <i>Phoenicopterus ruber</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>
<p>Figure 13. Indian Black Ibis (<i>Pseudibis papillosa</i>)</p>	<p>Figure 14. Euresion Spoonbill(<i>Platalea leucorodia</i>)</p>	<p>Figure 15. Greater Flamingo (<i>Phoenicopterus ruber</i>)</p>
 <p>Lesser Whistling Duck <i>Dendrocygna javanica</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>	 <p>Brahminy/Ruddy Shelduck <i>Tadorna ferruginea</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>	 <p>Eurasian Wigeon <i>Anas penelope</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>
<p>Figure 16. Lesser Whistling Duck (<i>Dendrocygna javanica</i>)</p>	<p>Figure 17. Brahminy/Ruddy-Shelduck (<i>Tadorna ferruginea</i>)</p>	<p>Figure 18. Euresian Wigeon (<i>Anas Penelope</i>)</p>
 <p>Northern Pintail <i>Anas acuta</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>	 <p>Spot Billed Duck <i>Anas Poicillorhyncha</i> PROF. CHAVAN S. P., ZOOLOGY, SATM UNIVERSITY, NANDED, ©2014</p>	 <p>Northern Shoveller <i>Anas clypeata</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>
<p>Figure 19. Northern Pintail (<i>Anas acuta</i>)</p>	<p>Figure 20. Spot Billed Duck (<i>Anas poicillorhyncha</i>)</p>	<p>Figure 21. Northern Shoveller (<i>Anas clypeata</i>)</p>
 <p>Garganey <i>Spatula querquedula</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>	 <p>Cotton Pigmy Goose <i>Netapus coromandalianus</i> PROF. S. P. CHAVAN, ZOOLOGY, SATM UNIVERSITY, NANDED, MS, INDIA</p>	 <p>Comb Duck <i>Sarkiaiornis melanotos</i> PROF. CHAVAN S. P., SATM UNIVERSITY, NANDED, MS, INDIA</p>
<p>Figure 22. Garganey (<i>Spatula querquedula</i>)</p>	<p>Figure 23. Cotton/Pigmy Goose(<i>Netapus coromandalianus</i>)</p>	<p>Figure 24. Comb Duck(<i>Sarkiaiornis melanotos</i>)</p>

		
<p>Figure 25. Black Shouldered Kite (<i>Elanus caeruleus</i>)</p>	<p>Figure 26. Black Kite (<i>Malvus migrans</i>)</p>	<p>Figure 27. Brahminy kite (<i>Haliastur Indus</i>)</p>
		
<p>Figure 28. Besra Sparrow Hawk (<i>Accipiter virgatus</i>)</p>	<p>Figure 29. African Cuckoo – Hawk/African Baza/Cuckoo-Falcon (<i>Aviceda cuculoides</i>)</p>	<p>Figure 30. Gray Francolin (<i>Francolinus pondicerianus</i>)</p>
		
<p>Figure 31. Common Coot (<i>Fulica atra</i>)</p>	<p>Figure 32. White Breasted Waterhen (<i>Amaurornis phoenicurus</i>)</p>	<p>Figure 33. Purple Moorhen (<i>Porphyrio porphyrio</i>)</p>
		
<p>Figure 34. Common Moorhen (<i>Gallinula chloropus</i>)</p>	<p>Figure 35. Indian Shag/Cormorant (<i>Phalacrocorax fuscicollis</i>)</p>	<p>Figure 36. Little Cormorant (<i>Phalacrocorax niger</i>)</p>
		
<p>Figure 37. Greater Cormorant (<i>Phalacrocorax carbo</i>)</p>	<p>Figure 38. Black Winged Stilt (<i>Himantopus himantopus</i>)</p>	<p>Figure 39. Red Wattle Lapwing (<i>Venellus indicus</i>)</p>

 <p>Asian Pied Starling <i>Sturnia pagodarum</i></p> <p>© Prof. S. P. Chavan, SRTM University, Warananagar, Maharashtra, India, 2015. No need only along with image.</p>	 <p>PROF. CHAVAN S. P., ZOOLOGY, SRTM UNIVERSITY, NANDED, 430112</p> <p>Darter - <i>Anhinga melanogaster</i></p>	 <p>Little Ringed Plover - <i>Charadrius dubius</i></p> <p>Prof. S. P. Chavan, Zoology, SRTM University, Nanded, 430112 © S.P. Chavan</p>
<p>Figure 40. Asian Pied Starling <i>Sturnia pagodarum</i></p>	<p>Figure 41. Darter (<i>Anhinga melanogaster</i>)</p>	<p>Figure 42. Little ringed plover(<i>Charadrius dubius</i>)</p>
 <p>Common Sandpiper - <i>Actitis hypoleucos</i></p> <p>© Prof. S. P. Chavan, Zoology, SRTM University, Nanded, 430112</p>	 <p>Wood Sandpiper - <i>Tringa glareola</i></p> <p>Prof. S. P. Chavan, Zoology, SRTM University, Nanded, 430112 © Prof. S. P. Chavan</p>	 <p>River Tern - <i>Sterna aurantia</i></p> <p>Prof. S. P. Chavan, Zoology, SRTM University, Nanded, Nov. 2011</p>
<p>Figure 43. Common Sandpiper (<i>Actitis hypoleucos</i>)</p>	<p>Figure 44. Wood Sandpiper (<i>Tringa glareola</i>)</p>	<p>Figure 45. River Tern (<i>Sterna aurantia</i>)</p>
 <p>Common Tern <i>Sterna hirundo</i></p> <p>© Prof. S. P. Chavan, Zoology, SRTM University</p>	 <p>Blue Rock Pigeon - <i>Columba livia</i></p> <p>Prof. S. P. Chavan, Zoology, SRTM University, Nanded, 430112</p>	 <p>Eurasian Collared Dove <i>Streptopelia decaocto</i></p> <p>Prof. S. P. Chavan, Zoology, SRTM University, Nanded, 430112, SRTM Univ. N.</p>
<p>Figure 46. Common Tern (<i>Sterna hirundo</i>)</p>	<p>Figure 47. Blue Rock Pigeon/Dove <i>Columba livia</i></p>	<p>Figure 48. Eurasian Collared Dove <i>Streptopelia decaocto</i></p>
 <p>Laughing Dove - <i>Streptopelia senegalensis</i> Columbiformes: Columbidae (RBC) Near Hilly region- Ujgir, Dist Latur © Prof. S. P. Chavan-2012, SRTM Univ. Nanded, MS</p>	 <p>Blossom Headed parakeet (<i>Psittacula roseate</i>)</p> <p>© Prof. S. P. Chavan, Zoology, SRTM University, Nanded, 430112</p>	 <p>Eurasian Spotted Owllet <i>Athene brama</i></p> <p>© Prof. S. P. Chavan, Zoology, SRTM Univ. Nanded, Aug. 2011</p>
<p>Figure 49. Laughing Dove (<i>Streptopelia senegalensis</i>)</p>	<p>Figure 50. Blossom Headed parakeet (<i>Psittacula roseate</i>)</p>	<p>Figure 51. Spotted Owllet (<i>Athene brama</i>)</p>
 <p>White Collared Swift <i>Streptoprocne zonaris</i></p> <p>PROF. CHAVAN S. P., ZOOLOGY, SRTM UNIVERSITY, NANDED, 430112</p>	 <p>Pied Kingfisher - <i>Ceryle rudis</i></p> <p>Prof. S. P. Chavan, Zoology, SRTM University, Nanded, (July, 2014, Godavari River)</p>	 <p>Common Kingfisher <i>Alcedo atthis</i></p> <p>09/11/2014</p>
<p>Figure 52. White Collared Swift(<i>Streptoprocne zonaris</i>)</p>	<p>Figure 53. Lesser Pied Kingfisher (<i>Ceryle rudis</i>)</p>	<p>Figure 54. Common Kingfisher (<i>Alcedo atthis</i>)</p>

		
<p>Figure 55. White Breasted Kingfisher (<i>Halcyon smyrnensis</i>)</p>	<p>Figure 56. Little Green Bee eater (<i>Merops orientalis</i>)</p>	<p>Figure 57. Blue tail Beater (<i>Merops philippinus</i>)</p>
		
<p>Figure 58. Indian Roller (<i>Coracias benghalensis</i>)</p>	<p>Figure 59. Indian Gray Hornbill (<i>Ocyrocus birostris</i>)</p>	<p>Figure 60. Coppersmith barbet (<i>Megalanima haemacephala</i>)</p>
		
<p>Figure 61. Ashy crown sparrow Lark (<i>Eremopteryx grisea</i>)</p>	<p>Figure 62. Black Breasted Lark (<i>Eremopteryx nigricaps</i>)</p>	<p>Figure 63. White Bellied Drongo (<i>Dicurus caerulescens</i>)</p>
		
<p>Figure 64. Crow Billed Drongo (<i>Dicurus annectans</i>)</p>	<p>Figure 65. Longtailed/Rfous-back Shrike (<i>Lanius schach</i>)</p>	<p>Figure 66. Common Myna (<i>Acridotheres tristis</i>)</p>

		
<p>Figure 67. Brahminy Starling (<i>Sturnia pagodarum</i>)</p>	<p>Figure 68. Indian/Rufous Treepie (<i>Dendrocitta vagabunda</i>)</p>	<p>Figure 69. House Crow (<i>Corvus splendens</i>)</p>
		
<p>Figure 70. Red-Vented Bulbul (<i>Pycnonotus cafer</i>)</p>	<p>Figure 71. Black headed bulbul (<i>Pycnonotus atriceps</i>)</p>	<p>Figure 72. Ashy Wren Prinia/ Warbler (<i>Prinia socialis</i>)</p>
		
<p>Figure 73. Common koel (<i>Eudynamis scolopacea</i>)</p>	<p>Figure 74. Purple rumped sunbird (<i>Leptocoma zeylonica</i>)</p>	<p>Figure 75. Yellow wagtail (<i>Motacilla flava</i>)</p>
		
<p>Figure 76. White browed wagtail (<i>Motacilla aderspatensis</i>)</p>	<p>Figure 77. Oriental Tree Pipit/ <i>Anthus hodgsoni</i></p>	<p>Figure 78. Lark Bunting (<i>Calamospiza melanocoryx</i>)</p>

		
<p>Figure 79. Paddy Field Pipit(<i>Anthus rufulus</i>)</p>	<p>Figure 80. Scaly Breasted/Spotted Munia (<i>Lonchura punctulata</i>)</p>	<p>Figure 81. Chestnut Munia (<i>Lonchura atricapilla</i>)</p>
		
<p>Figure 82. Red Munia/Amandava (<i>Amandava amandava</i>)</p>	<p>Figure 83. Indian Robin (<i>Saxicoloides fulicata</i>)</p>	<p>Figure 84. White throated Munia (<i>Lonchura malabarica</i>)</p>
		
<p>Figure 85. Streaked Weaver <i>Placeus manyar</i></p>	<p>Figure 86. Oriental Magpie Robin- <i>Copsicus saularis</i></p>	<p>Figure 87. Black Drongo <i>Dicrurus macrocercus</i></p>
		
<p>Figure 88. Yellow Wattled Lapwing <i>Venellus mulbaricus</i></p>	<p>Figure 89. Common Tailor Bird <i>Orthotomus sutorius</i></p>	<p>Figure 90. Greater Coucal <i>Centropus sinensis</i></p>

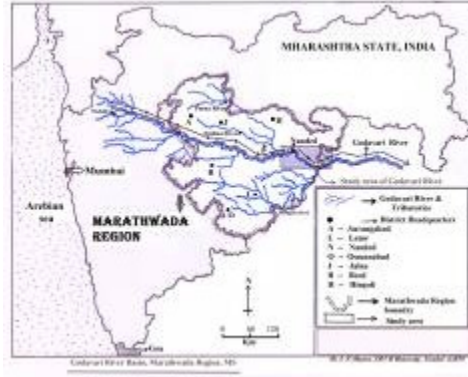


Fig. 91 Study area: Godavari River Basin, Marathwada Region, Maharashtra, India for avifaunal diversity



Fig. 92 Satellite view of minor pond (Lake Placid), S. R. T. M. University, Nanded area selected for avifaunal diversity studies.



Fig 93 Jarikot lake, Near Dharmabad, Dist. Nanded. The Most populated site of aquatic birds observed during study period.

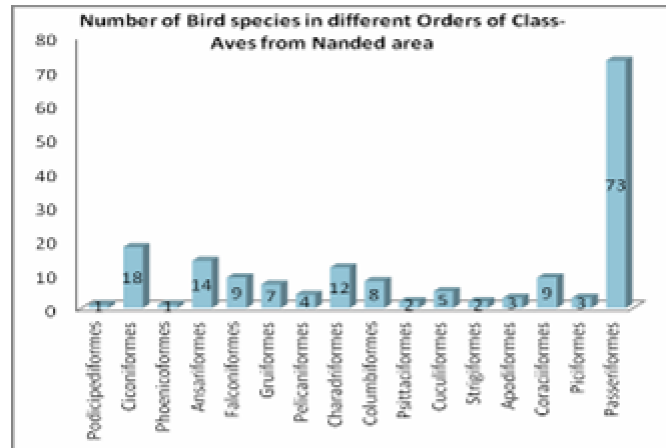


Fig.94 Total number of bird species in different Orders of Class- Aves sighted from Nanded area, Maharashtra State, India

In the Present study on review of bird species, the winter migrant (WM) least concern (LC) bird species from South African continent African Baza (African Cuckoo – Hawk) (*Aviceda cuculoides*) (Fig. 29) was sighted at river Godavari near Cherli bridge (Table 1.), near Jarikot, Dharmabad, District Nanded. During March 2015 four individuals were sighted in the river basin sitting on the rocks in river. The local domestic crow species *Corvus splendence* were chasing the Baza and excavating them from the river. It is the first record of this African Eagle species from Godavari river basin of this region. A Darter (*Anhinga melanogaster*) (Fig. 41.) was sighted near Udgir downtown region to Udgir Fort, Udgir town at small size sewage fed minor pond near village Pimpri, Ta. Udgir. The Darter was sitting on a mango tree (*Mangifera indica*) on the coast of pond. With this bird 03 Black Ibis were also found sitting very close to each other on the same branch. In the present study sighting of River tern (*Sterna aurantia*) (Fig. 45) under NT ecological status at Godavari river near Jarikot village Ta. Dharmabad is a new report, it was not reported in earlier investigations from this region. Kulkarni et. al. (2005) and Balkhande (2010, 2012, 2013,

2014) had not reported this tern which we found in very rare number along the river margin with Common tern (*Sterna hirundo*). Presence of Little tern (*Sterna albifrons*) in this region is also a new report. Prasad et. al., (2014) reported the occurrence of whisker tern as winter migrant. Gray francolin (Fig. 30) was also sighted near village Jarikot on the banks of river Godavari during September and October 2014 and reported with its photograph first time in this study. There might be presence of francolins in many number in the region because there was continuous typical sound production by these birds which was recorded in the selected study area especially during the late monsoon season. The occurrence of * marked bird species enlisted in the checklist of present study were not sighted in the selected habitats but Kulkarni et. al., (2005) reported the occurrence of these birds hence more investigation for sighting these species is essential.

Acknowledgements

Thanks are due to University Grants Commission, New Delhi for providing grants (F. No. 41-65/2012 (SR, 11/07/2012)

to purchase camera for photography and video recording. It was additional work carried during the Major Research Project work on collection of fishes for Taxonomy of Helminth parasites from fishes of Marathwada region and Western Ghats of Maharashtra State, India.

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