

BIRDS IN AND AROUND NANDED CITY, MAHARASHTRA

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Nanded district in South East of Maharashtra is situated on the bank of river Godavari. It has varied habitats like river, dams, lakes, mountain strips and agriculture fields. The predominating vegetation is typically dry deciduous type (Champion & Jeth, 1968). Common flowering tree species are *Acacia arabica*, *Melia azadirachta*, *Ficus religiosa*, *Mangifera indica*, *Ficus bengalensis*, *Tectona grandis*, *Zizyphus jujuba*, *Vitex negundo*, *Caesalpinia* sp., *Bombax* sp., *Millingtonia hortensis*; *Butea monosperma*, *Bauhinia racemosa*, *Eucalyptus* sp., *Terminalia paniculata*. Dominant shrubs occurring here are *Lantana camera*, *Ipomoea convoluta*, *Calotropis procera*, *Cassia* sp. etc. Aquatic weeds like *Hydrilla* sp., *Typha* sp., *Cyperus* sp., *Chara* sp., *Vallisneria* sp., *Pistia* sp. etc. are present in water bodies.

Survey work by Yardi *et al.* (2004) conducted at Salim Ali lake Aurangabad, revealed the presence of 64 species of birds. Wadatkar and Kasambe (2002) reported 171 species of birds at Pohara-Malkhed Forest Reserve and Amaravati University Campus area, Amravati, Maharashtra. Avifauna at Nanded is unexplored as yet and hence the present survey work to record biodiversity of birds was conducted with scientific methodology that will form a base line information for future indepth studies.

The survey was carried out at six stations: 1. Osmanagar - as a road side station; 2. River Godavari - as a lotic habitat; 3. Science college campus - as a city area; 4. Sita khandi - as a forest habitat; 5. Shikhachi Wadi - as a perennial lentic habitat; and 6. Derala Dam - as a semi perennial lentic and grass land habitat. These study stations are about 20-30km from Nanded city except the science college, Nanded, which is situated in the heart of the city.

Methods: The reports is based on observation made from May 2000- May 2002. Regular visits were made to these study areas. Observations were carried on fixed path in 1km radius in each station by using line transect method by Gaston (1973) for which nearly two hours were spent. The birds were sighted by using binoculars of 8x and 7x magnification and spot identification was done by using field guides (Ali & Ripley, 1983; Ali, 1996; Grimmette *et al.*, 1999; Kazmierczak, 2000; Manakadan & Pittie, 2001) and only those species with confirmed identity are reported in this paper. A check list is prepared as per the guide lines given in the check list of birds (Abdulali, 1981; Gaikwad *et al.*, 1997).

The status of the birds are catagorized as residential (R), migrant (M), resident migrant (RM), winter migrant (WM), breeding migrant (BM) and passage migrant (PM). Abundance of birds was catagorised as common (C), uncommon (U), rare (r) and occasional (O).

Observations: The study reveals the occurrence of 151 species of birds belonging to 44 families and 16 orders. Table 1 details the scientific and common names, status and occurrence of the birds. The list includes 86 species of resident birds, 32 species resident migrants, 19 species winter migrants, 10 species migrants, two species breeding migrants and two species passage migrants. Fifteen species, namely, Cattle Egret, Red-wattled Lapwing, Blue Rock Pigeon, Eurasian collared-Dove, Rufous collared-Dove, Rose-ringed Parakeet, Greater Coucal, Brainfever Bird, House Swift, Small Bee-eater, Common Swallow, Black Drango, Common Myna, Red-vented Bulbul, White-throated Munia, were common in all the study stations. Maximum number of birds were recorded at Sitakhadi forest (81 species) where as only 46 species of birds were recorded at Science College Campus. Different types of aquatic birds were recorded at river Godavari, Sikhachiwadi, Sitakhandi and Derala. Local environmental conditions and season have impact on composition, diversity and occurrence of birds. Bird population was more during winter and summer. It was noted that birds moved out from one station to the other to avoid unfavorable environmental conditions. The Rosy Starling was found after winter season in flocks. Birds like Demoiselle Crane, Bar-headed Goose, White-bellied Heron, Asian Paradise-Flycatcher, Pied Crested Cuckoo were observed in very less numbers. Vultures and flamingos were not recorded during the span of study. The Comb Duck was observed only at Sitakhandi; Pheasant-tailed Jacana was observed at Derala and Sitakhandi; while the Black Stork, a threatened bird was observed at Shikhachiwadi.

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Table 1. Checklist of birds in and around Nanded city, Maharashtra

Common Name	Scientific Name	Occurrence	Common Name	Scientific Name	Occurrence
Podicipediformes			Pelecaniformes		
Podicipedidae			Phalacrocoracidae		
Little Grebe	<i>Tachybaptus ruficollis</i>	RMC	Indian Shag	<i>Phalacrocorax fuscicollis</i>	RMU
Ciconiiformes			Little Cormorant	<i>Phalacrocorax niger</i>	RMC
Ardeidae			Charadriiformes		
Grey Heron	<i>Ardea cinerea</i>	RMU	Recurvirostridae		
Indian Pond Heron	<i>Ardeola grayii</i>	RC	Black-winged Stilt	<i>Himantopus himantopus</i>	WMC
Cattle Egret	<i>Bubulcus ibis</i>	RC	Charadriidae		
Little Egret	<i>Egretta garzetta</i>	RC	Red-wattled Lapwing	<i>Vanellus indicus</i>	RC
Large Egret	<i>Casmerodius albus</i>	RMr	Yellow-wattled Lapwing	<i>Vanellus Malabaricus</i>	RU
Purple Heron	<i>Ardea purpurea</i>	RMr	Little Ringed Plover	<i>Charadrius dubius</i>	WMU
White-bellied Heron	<i>Ardea insignis</i>	RMr	Scolopacidae		
Ciconiidae			Common Sandpiper	<i>Actitis hypoleucos</i>	WMU
Painted Stork	<i>Mycteria leucocephala</i>	RMC	Curlw Sandpiper	<i>Calidris ferruginea</i>	WMU
Asian Open-bill Stork	<i>Anastomus oscitans</i>	RMC	Terek Sandpiper	<i>Xenux cinereus</i>	WMU
Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>	Mr	Wood Sandpiper	<i>Tringa glareola</i>	WMU
White-necked Stork	<i>Ciconia episcopus</i>	Mr	Marsh Sandpiper	<i>Tringa stagnatilis</i>	WMU
Black Stork	<i>Ciconia nigra</i>	WMr	Laridae		
Threskiornithidae			River Tern	<i>Sterna aurantia</i>	RMU
Oriental White Ibis	<i>Threskiornis melanocephalus</i>	RMU	Columbiformes		
Black Ibis	<i>Pseudibis papillosa</i>	RU	Pteroclididae		
Glossy Ibis	<i>Plegadis falcinellus</i>	PMO	Chest nut-billed Sandgrouse	<i>Pterocles exustus</i>	Rr
Eurasian Spoonbill	<i>Platalea leucorodia</i>	WMU	Columbidae		
Anseriformes			Blue Rock Pigeon	<i>Columba livia</i>	RC
Anatidae			Eurasian Collared-Dove	<i>Streptopelia decaocto</i>	RC
Bar-headed Goose	<i>Anser indicus</i>	WMr	Spotted Dove	<i>Streptopelia chinensis</i>	RU
Lesser Whistling Duck	<i>Dendrocygna javanica</i>	WMC	Little Brown Dove	<i>Streptopelia senegalensis</i>	RU
Brahminy Shelduck	<i>Tadorna ferruginea</i>	WMC	Oriental turtle Dove	<i>Streptopelia orientalis</i>	RMC
Northern Pintail	<i>Anas acuta</i>	MU	Red Collared-Dove	<i>Streptopelia tranquebarica</i>	RMC
Spot-billed Duck	<i>Anas poecilorhyncha</i>	RMC	Yellow-legged Green Pigeon	<i>Treron phoenicoptera</i>	Rr
Garganey	<i>Anas querquedula</i>	WMU	Psittaciformes		
Northern Shoveller	<i>Anas clypeata</i>	WMU	Psittacidae		
Red-crested Pochard	<i>Rhodonessa rufina</i>	WMr	Rose-ringed Parakeet	<i>Psittacula krameri</i>	RC
Common Pochard	<i>Aythya ferina</i>	WMr	Blossom-headed Parakeet	<i>Psittacula roseata</i>	RU
Tufted Pochard	<i>Aythya fuligula</i>	WMr	Cuculidae		
Cotton Teal	<i>Nettapus coromandelianus</i>	WMr	Pied Crested Cuckoo	<i>Clamator jacobinus</i>	BMr
Comb Duck	<i>Sarkidiornis melanotos</i>	RMU	Asian Koel	<i>Eudynamis scolopacea</i>	RC
Marbled Teal	<i>Marmaronetta angustirostris</i>	RMr	Brainfever Bird	<i>Hierococcyx varius</i>	BMU
Falconiformes			Greater Coucal	<i>Centropus sinensis</i>	RU
Accipitridae			Strigiformes		
Black-shouldered Kite	<i>Elanus caeruleus</i>	Rr	Strigidae		
Black Kite	<i>Milvus migrans</i>	RU	Eurasian Scops Owl	<i>Otus scops</i>	RMr
Brahminy Kite	<i>Haliastur indus</i>	Rr	Apodiformes		
Shikra	<i>Accipiter badius</i>	Rr	Apodidae		
Besra Sparrow Hawk	<i>Accipiter virgatus</i>	Rr	House Swift	<i>Apus affinis</i>	RMr
White-eyed Buzzard	<i>Butastur teesa</i>	RMr	Asian Palm-Swift	<i>Cypsiurus balasienis</i>	Rr
Long-legged Buzzard	<i>Buteo rufinus</i>	RMr	Coraciiformes		
Falconidae			Alcedinidae		
Peregrine Falcon	<i>Falco peregrinus</i>	Mr	Lesser Pied Kingfisher	<i>Ceryle rudis</i>	RU
Galiformes			Small Blue Kingfisher	<i>Alcedo atthis</i>	RU
Phasianidae			Blue-eared Kingfisher	<i>Alcedo meninting</i>	RU
Painted Francolin	<i>Francolinus pictus</i>	RU	White-breasted Kingfisher	<i>Halcyon smyrnensis</i>	RU
Grey Francolin	<i>Francolinus pictus</i>	Rr	Meropidae		
Common Quail	<i>Coturnix coturnix</i>	RMr	Small Bee-eater	<i>Merops orientalis</i>	RMC
Indian Peafowl	<i>Pavo cristatus</i>	RC	Coraciidae		
Gruiformes			Indian Roller	<i>Coracias benghalensis</i>	Rr
Gruidae			Upupidae		
Demoiselle Crane	<i>Grus virgo</i>	Mr	Common Hoopoe	<i>Upupa epops</i>	RMU
Rallidae			Bucerotidae		
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	RC	Indian Grey Hornbill	<i>Ocyroceros birostris</i>	Rr
Purple Moorhen	<i>Porphyrio porphyrio</i>	RC	Piciformes		
Common Moorhen	<i>Gallinula chloropus</i>	RMC	Capitonidae		
Common Coot	<i>Fulica atra</i>	RMC	Coppersmith Barbet	<i>Megalaima haemacephala</i>	Rr
Charadriiformes					
Jacaniidae					
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	RMr			

Common Name	Scientific Name	Occurrence	Common Name	Scientific Name	Occurrence
Picidae			Yellow Wagtail	<i>Motacilla flava</i>	WMC
Black-shouldered woodpecker	<i>Chrysocolaptes festivus</i>	Rr	Grey Wagtail	<i>Motacilla cinerea</i>	Mr
Passeriformes			White Wagtail	<i>Motacilla alba</i>	MU
Alaudidae			Large Pied Wagtail	<i>Motacilla maderaspatensis</i>	MU
Rufous-tailed FinchLark	<i>Ammomanes phoenisurus</i>	RU	Forest Wagtail	<i>Dendronanthus indicus</i>	RM
Greater Short-toed Lark	<i>Calandrella brachydactyla</i>	RU	Nectariniidae		
Indian Short-toed Lark	<i>Calandrella raytal</i>	MR	Purple-rumped Sunbird	<i>Nectarinia zeylonica</i>	RU
Black-crowned Sparrow-Lark	<i>Eremopterix nigriceps</i>	RU	Purple Sunbird	<i>Nectarinia asiatica</i>	Rr
Bengal Bush-Lark	<i>Mirafra assamica</i>	RU	Small Sunbird	<i>Nectarinia minima</i>	RU
Eurasian Skylark	<i>Alauda arvensis</i>	RU	Zosteropidae		
Hirundinidae			Oriental White-eye	<i>Zosterops palpebrosus</i>	RU
Wire-tailed Swallow	<i>Hirundo smithii</i>	RU	Passeridae		
Common Swallow	<i>Hirundo rustica</i>	RMC	Passerinae		
House Swallow	<i>Hirundo tahitica</i>	RC	House Sparrow	<i>Passer domesticus</i>	RC
Red-rumped Swallow	<i>Hirundo daurica</i>	RMC	Ploceinae		
Dusky Crag-martin	<i>Hirundo concolor</i>	RC	Baya Weaver	<i>Ploceus philippinus</i>	RC
Streak-throated Swallow	<i>Hirundo fluvicola</i>	RU	Estrildidae		
Laniidae			White-throated Munia	<i>Lonchura malabarica</i>	RC
Great Grey Shrike	<i>Lanius excubitor</i>	RU	Spotted Munia	<i>Lonchura punctulata</i>	RU
Baybacked Shrike	<i>Lanius vittatus</i>	RU	Black-throated Munia	<i>Lonchura kelaarti</i>	RU
Rufous-backed Shrike	<i>Lanius schach</i>	RU	Campephagidae		
Dicruridae			Rosy Minivet	<i>Pericrocotus roseus</i>	Rr
Black Drongo	<i>Dicrurus macrocercus</i>	RC	Scarlet Minivet	<i>Pericrocotus flammeus</i>	Rr
White-bellied Drongo	<i>Dicrurus caerulescens</i>	RU	Pied Flycatcher Shrike	<i>Hemipus-picatus</i>	Rr
Sturnidae			Common Wood Shrike	<i>Tephrodornis pondicerianus</i>	RU
Common Myna	<i>Acridotheres tristis</i>	RC			
Brahminy Starling	<i>Sturnus pagodarum</i>	RC			
Asian Pied Starling	<i>Sturnus contra</i>	RU			
Rosy Starling	<i>Sturnus roseus</i>	PMC			
Corvidae					
Indian Treepie	<i>Dendrocitta vagabunda</i>	RU			
House Crow	<i>Corvus splendens</i>	RC			
Jungle Crow	<i>Corvus macrorhynchos</i>	RU			
Irenidae					
Common Iora	<i>Aegithina tiphia</i>	RU			
Gold-fronted Chloropsis	<i>Chloropsis aurifrons</i>	Rr			
Pycnonotidae					
Red-vented Bulbul	<i>Pycnonotus cafer</i>	RC			
Black Bulbul	<i>Hypsipetes leucocephalus</i>	Rr			
Muscicapidae					
Timaliinae					
Large Grey Babbler	<i>Turdoides malcolmi</i>	RC			
Jungle Babbler	<i>Turdoides striatus</i>	RC			
Yellow-eyed Babbler	<i>Chrysomma sinense</i>	Rr			
Yellow-breasted Babbler	<i>Macronous gularis</i>	Rr			
Muscicapinae					
Little Pied Flycatcher	<i>Ficedula westermanni</i>	Rr			
Asian Brown Flycatcher	<i>Muscicapa dauurica</i>	RMr			
Monarchinae					
Asian Paradise-Flycatcher	<i>Terpsiphone paradisi</i>	RMr			
Sylviinae					
Plain Prinia	<i>Prinia inornata</i>	RU			
Ashy Prinia	<i>Prinia socialis</i>	RU			
Jungle Prinia	<i>Prinia sylvatica</i>	RU			
Rufous-fronted Prinia	<i>Prinia buchanani</i>	RU			
Common Tailor Bird	<i>Orthotomus sutorius</i>	Rr			
Thick-billed Warbler	<i>Acrocephalus aedon</i>	Mr			
Turdinae					
Indian Robin	<i>Saxicoloides fulicata</i>	RU			
Indian Chat	<i>Cercomela fusca</i>	RU			
Paridae					
Great Tit	<i>Parus major</i>	Rr			
Pied Tit	<i>Parus nuchalis</i>	Rr			
Motacillidae					
Oriental Tree Pipit	<i>Anthus hodgsoni</i>	RMr			

RMC - Resident Migrant Common; RMU - Resident Migrant Uncommon; RC - Resident Common; RMr - Resident Migrant rare; M - Migrant; Mr - Migrant rare; WMr - Winter Migrant rare; RU - Resident Uncommon; PMO - Passage Migrant Occasional; PMC - Passage Migrant Common; WMU - Winter Migrant Uncommon; WMC - Winter Migrant Common; MU - Migrant Uncommon; Rr - Resident rare; BMr - Breeding Migrant rare; BMU - Breeding Migrant Uncommon

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