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**Nimain C. Palei**

Research Scholar, Office of the  
Principal Chief Conservator of  
Forests (Wildlife), & Chief  
Wildlife Warden, Odisha,  
Bhubaneswar.

**Bhakta P. Rath**

Research Scholar, Office of the  
Principal Chief Conservator of  
Forests (Wildlife), & Chief  
Wildlife Warden, Odisha,  
Bhubaneswar.

**Sajan S.K**

P.G. Department of Wildlife and  
Biodiversity Conservation, North  
Orissa University, Sri  
Ramchandra Vihar, Baripada.

**Arun K. Mishra**

Divisional Forest Officer, Athgarh  
Forest Division.

**Correspondence:**

**Nimain C. Palei**

Research Scholar, Office of the  
Principal Chief Conservator of  
Forests (Wildlife), & Chief  
Wildlife Warden, Odisha,  
Bhubaneswar.

## Avifauna of Athgarh Forest Division, Odisha. Eastern India

**Nimain C. Palei, Bhakta P. Rath, Sajan S.K, and Arun K. Mishra**

### Abstract

A total of 122 birds were recorded representing 49 families of 14 orders. Among the 15 orders :Passeriformes dominated the list with fifty six species (46%), Ciconiiformes with 20 species (16%), Strigiformes with eight species (7%), Piciformes with seven species (6%), Coraciiformes with six species (5%), Columbiformes and Cuculiformes with five species (4%), Psittaciformes, Gruiformes and Galliformes with three species (2%), Apodiformes with two species (2%), Bucerotiformes, Trogoniformes and Upupiformes with one species (1%).

**Keywords:** Avifauna, Athgarh Forest Division, Checklist, Birds, Odisha, India.

### 1. Introduction

The avifauna of Orissa have mainly studied by Acharya & Kar (1996), Acharya et al. (1997, 1999), Pandav (1997), Kar et al. 1999, Sahu & Kar (1999, 2000), Singh et al. (2000), Nayak (2003a, 2003b, 2005), Gopi et al. (2005, 2006), Gopi & Pandav (2007a, 2007b), Sahu & Rout (2005). Ball (1876, 1877, 1878), Mukherjee (1952), Ripley (1979), Abudalali (1984), Biswas (1954), Beeheler et al. (1985), Majumdar (1988), Singh & Rout (1992), Singh (1993), Kar & Sahu (1993, 1999), Almost all previous information on the birds of Orissa is based on the studies and surveys from its coastal region and most of the studies were focused on waterbirds (Kar & Sahu 1993, 1999; Acharya & Kar 1996; Acharya et al. 1997, 1999; Pandav 1997; Kar et al. 1999; Sahu & Kar 1999, 2000; Nayak 2003a, 2003b, 2005; Gopi et al., 2005, 2006; Gopi & Pandav 2007a, 2007b). Few studies have done in other parts of Orissa (Ball 1876, 1877, 1878; Mukherjee 1952; Biswas 1954; Ripley 1979; Abudalali 1984; Beeheler et al. 1985; Majumdar 1988; Singh & Rout 1992; Singh 1993; Sahu and Rout 2005). Birds are poorly known in southern Orissa though Biswas (1954), Abudalali (1984), Beeheler et al. (1985), Majumdar (1988) have made some valuable contribution. Hence there was lacuna in the information on the status, distribution, species composition, abundance and conservation issues related birds in southern Odisha. No specific complete checklist of birds of Athgarh Forest Division was prepared by any agency except, the reference of some common birds of the Division in the working plans. Thus the present study was conducted to August 2012 to July 2013 during based on observational method.

### 2. Materials and Methods

#### 2.1 Study Area

Thus the study was conducted at Athgarh Forest Division located between Latitude N 20°-21'-19.2" to N 20°-40'-27.6" and Longitude E 85°-52'-0.72" to E 84°-55'-42.8"E. The Division spreads over an area of 1510.21 km<sup>2</sup> out of which 577.70 km<sup>2</sup> is Reserve Forests. Including 37 Reserve Forests and 17 Protected Reserve Forests. It comprises of entire Athgarh Sub-Division and part of Banki Sub-Division under jurisdiction of Athgarh, Baramba, Tigiria, Narasinghpur and Banki Tahasil and C.D. Blocks and one N.A.C. at Athgarh. This Division has five Ranges namely Athgarh, Baramba, Khuntuni, Narasinghpur East and Narasinghpur West and is bordered by Cuttack Forest Division and City Forest Division in the East, Chandaka Wild Life Division, Nayagarh Division and portion of Mahanadi Wild Life Division in the South, Dhenkanal Forest Division in the North and Satkosia Wild Life Division in the West. May is the hottest month of the year while December is the coldest. The temperature varies from 9 °C to 42 °C. Such wide range of variation indicates both extreme hot and cold condition.

## 2.2 Surveillance

The avifauna of Athgarh Forest Division were surveyed during August 2012 to July 2013 as a part of biodiversity study of this Division. Surveys were conducted on weekly basis by systematically walking on fixed routes throughout the study area. The birds were observed during most active period of the day i.e. 6:00 AM to 8:30 AM and 15:30 PM to 18:30 PM with the help of 8 X 40 Bushnell binoculars. All identifications were based according to Grimmett et al. (2001) and only those species with confirmed identification are listed in this paper. Based on the frequency of sightings in the field visits, the avifauna was categorized in to following four categories.

## 2.3 Common (C)

Observed throughout the study in fairly good numbers and

abundant in a particular locality. In general, if the percentage of recording is more than 50 times they are grouped in the category.

## 2.4 Uncommon (UC)

Found in small numbers and less frequency. Sightings were less than 50 percent and more than 10 percent. (Mostly seasonal migratory birds come to this category.)

## 2.5 Rare (R)

Seen in very small numbers with less than 10 percent sighting frequency. The birds have also been categorized as as resident (Re) and migratory (Ma). Informal interviews with the members of the local community were used to gather information on conservation issues.

**Table 1:** Bird Checklist of Athgarh Forest Division.

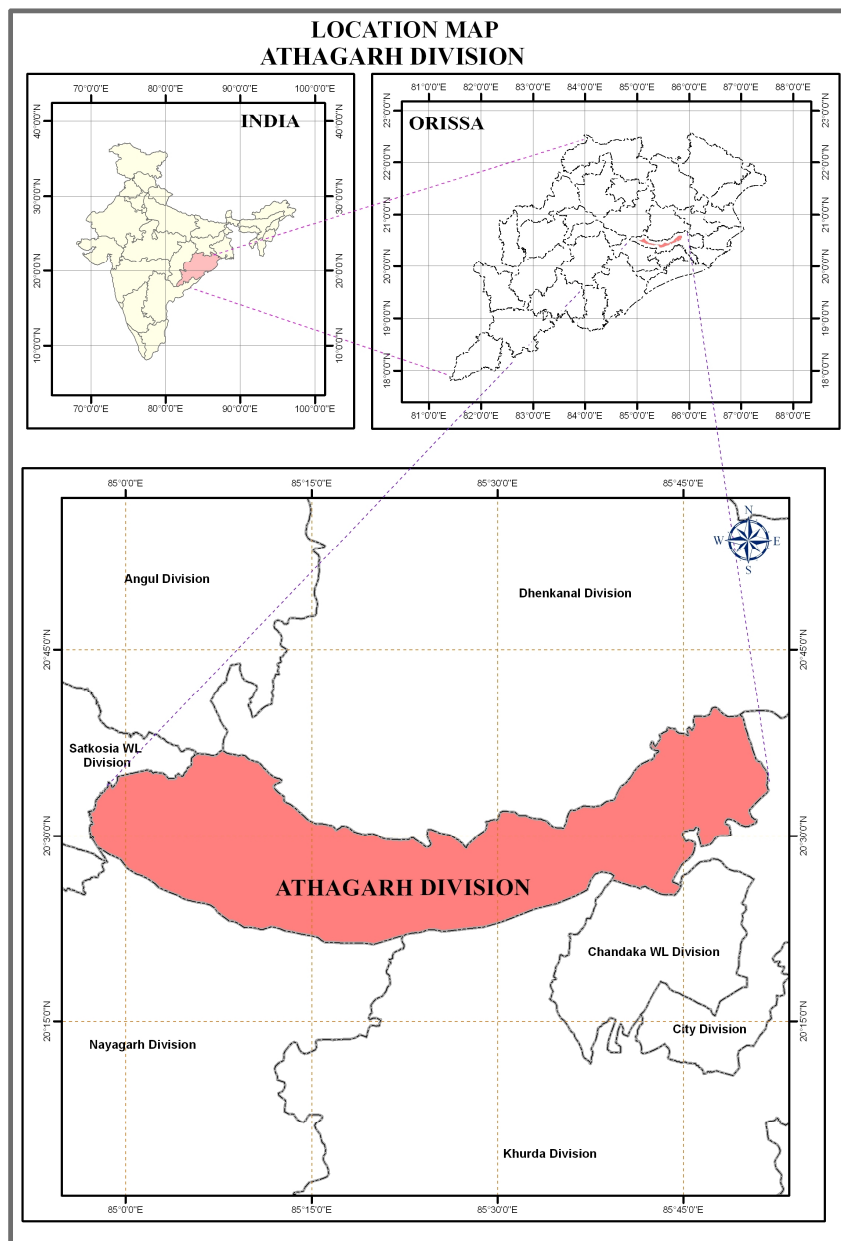
Sl.No	Common Name	Scientific Name	Frequency	Status
	<b>Order: Galliformes</b>			
	<b>Family: Phasianidae</b>			
1	Jungle Bush Quil	<i>Perdica asiatica</i>	C	Re
2	Red Jungle Fowl	<i>Gallus gallus</i>	C	Re
3	Indian Peafowl	<i>Pavo cristatus</i>	C	Re
	<b>Order: Turniciformes</b>			
	<b>Family: Turnidae</b>			
4	Small Buteonquail	<i>Turnix sylvatica</i>	C	Re
	<b>Order: Piciformes</b>			
	<b>Family: Indicatoridae</b>			
5	Rufous-bellied Woodpecker	<i>Celeus brachyurus</i>	C	Re
6	Yellow Crowned Woodpecker	<i>Dedrocopos maharattensis</i>	C	Re
7	Black-rumped Flameback	<i>Dinopium javanense</i>	C	Re
8	White-naped Woodpecker	<i>Chrysocolaptes festives</i>	R	Re
9	Heart-spotted Woodpecker	<i>Hemicircus canente</i>	UC	Re
	<b>Family: Megalaimidae</b>			
10	Brown-headed Barbet	<i>Megalaima zeylanica</i>	C	Re
11	Coppersmith Barbet	<i>Megalaima haemacephala</i>	C	Re
	<b>Order: Bucerotiformes</b>			
	<b>Family: Bucerotidae</b>			
12	Indian Grey Hornbill	<i>Ocyrceros birostris</i>	R	Re
	<b>Order: Upupiformes</b>			
	<b>Family: Upopidae</b>			
13	Common Hoopoe	<i>Upupa epops</i>	UC	Re
	<b>Order: Trogoniforme</b>			
	<b>Family: Troginidae</b>			
14	Malabar Trogon	<i>Harpactes fasciatus</i>	C	Re
	<b>Order: Coraciiformes</b>			
	<b>Family: Coraciidae</b>			
15	Indian Ruller	<i>Coracias bengalensis</i>	C	Re
	<b>Family: Alcedinidae</b>			
16	Common Kingfisher	<i>Alcedo atthis</i>	C	Re
	<b>Family: Halcyonidae</b>			
17	White-throated Kingfisher	<i>Halycon smyrnesis</i>	C	Re
	<b>Family: Moropidae</b>			
18	Green Bea-eater	<i>Merops orientalis</i>	C	Re
19	Blue Tailed Bee-eater	<i>Merops philippinus</i>	UC	Ma (wv)
20	Chestnut Headed Bee-eater	<i>Merops leschenaulti</i>	UC	Re
	<b>Order: Cuculiformes</b>			
	<b>Family: Cuculidae</b>			
21	Pied Cuckoo	<i>Clamator jacobinus</i>	UC	Ma (sv)
22	Common Hawk Cuckoo	<i>Hierococcyx varius</i>	UC	Re
23	Eurasian Cuckoo	<i>Cuculus micropterus</i>	C	Re
24	Asian Koel	<i>Eudynamys scolopacea</i>	C	Re

	<b>Family: Centropodidae</b>			
25	Greater Coucal	<i>Centropus sinensis</i>	C	Re
	<b>Order: Psittaciformes</b>			
	<b>Family: Psittacidae</b>			
26	Alexandrine Parakeet	<i>Psittacula eupartia</i>	C	Re
27	Rose-ringed Parakeet	<i>Psittacula krameri</i>	C	Re
28	Plum Headed Parakeet	<i>Psittacula cyanocephala</i>	C	Re
	<b>Order: Apodiformes</b>			
	<b>Family: Apodidae</b>			
29	House Swift	<i>Apus affinis</i>	C	Re
	<b>Family: Hemiprocnidae</b>			
30	Crested Tree Swift	<i>Hemiprogne coronata</i>	UC	Re
	<b>Order: Strigiformes</b>			
	<b>Family: Tytonidae</b>			
31	Barn owl	<i>Tyto alba</i>	UC	Re
32	Family: Strigidae			Re
33	Collared Scops Owl	<i>Otus bakkamoena</i>	UC	Re
34	Eurasian Eagle Owl	<i>Bubo bubo</i>	R	Re
35	Brown Fish Owl	<i>Ketupa zeylonsis</i>	C	Re
36	Jungle Owlet	<i>Glacidium radiatus</i>	UC	Re
37	Spotted Owlet	<i>Athene brama</i>	UC	Re
	<b>Family: Caprimulgidae</b>			
38	Indian Nightjar	<i>Caprimulgus asiaticus</i>	UC	Re
	<b>Order: Columbiformes</b>			
	<b>Family: Columbidae</b>			
39	Rock Pigeon	<i>Columba livia</i>	C	Re
40	Yellow footed green pigeon	<i>Treron phoenicoptera</i>	R	Re
41	Emerald Dove	<i>Chalcophaps indica</i>	UC	Re
42	Spotted Dove	<i>Streptopelia chinensis</i>	C	Re
43	Eurasian Collard Dove	<i>Streptopelia decaocto</i>	UC	Re
	<b>Order: Gruiformes</b>			
	<b>Family: Rallidae</b>			
44	Brown Crake	<i>Amaurornis akool</i>	UC	Re
45	White-breasted Waterhen	<i>Amurornis phoenicurus</i>	C	Re
46	Common Moorhen	<i>Gallinula chloropus</i>	C	Re
	<b>Order: Ciconiiformes</b>			
	<b>Family: Triaginae</b>			
47	Common Sandpiper	<i>Actitis hypoleucos</i>	C	Ma (wv)
	<b>Family: Charadriinae</b>			
48	Red-wattled Lapwing	<i>Vanellus cinereus</i>	C	Re
49	Yellow-wattled Lapwing	<i>Venellus malabaricus</i>	UC	Re
	<b>Family: Accipitrinae</b>			
50	Black Shouldered Kite	<i>Elanus caeruleus</i>	UC	Re
51	Black Kite	<i>Milvus migrans</i>	C	Re
52	Crested Serpent Eagle	<i>Spilornis cheela</i>	C	Re
53	Steppe Eagle	<i>Aquila nepalensis</i>	UC	Re
54	Oriental Honey Buzzard	<i>Pernis ptilorhyncus</i>	UC	Re
55	Sikra	<i>Accipiter badius</i>	C	Re
	<b>Family: Phalacrocoracidae</b>			
56	Little Cormorant	<i>Phalacrocorax niger</i>	C	Re
57	Indian Cormorant	<i>Phalacrocorax fuscicollis</i>	UC	Re
	<b>Family: Ardeidae</b>			
58	Little Egret	<i>Egrett garzetta</i>	C	Re
59	Cattle Egret	<i>Bubulcus ibis</i>	C	Re
60	Indian Pond heron	<i>Ardeola grayii</i>	C	Re
61	Little Heron	<i>Bufirides stritus</i>	C	Re
62	Median Egret	<i>Mesophoyx intermedia</i>	C	Re
63	Large Egret	<i>Casmerodius albus</i>	UC	Re
64	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	UC	Re
	<b>Family: Ciconiidae</b>			
65	Asian Openbill	<i>Anastomus oscitans</i>	UC	Re
66	Black Stork	<i>Ciconia nigra</i>	R	Ma

	<b>Order: Passeriformes</b>			
	<b>Family: Pittidae</b>			
67	Indian Pitta	<i>Pitta sordida</i>	C	Ma (sv)
	<b>Family: Irenidae</b>			
68	Blue-winged Leafbird	<i>Chloropsis cochinchinensis</i>	UC	Re
69	Golden Fronted Leaf bird	<i>Chloropsis aurifrons</i>	C	Re
	<b>Family: Corvini</b>			
70	Rufous Treepie	<i>Dendrocitta vagabunda</i>	C	Re
71	House Crow	<i>Corvus splendens</i>	C	Re
72	Large-billed Crow	<i>Corvus macrorhyncos</i>	UC	Re
	<b>Family: Orioloni</b>			
73	Black-hooded Oriole	<i>Oriolus xanthornus</i>	C	Re
74	Eurasian Golden Oriole	<i>Oriolus oriolus</i>	UC	Re
75	Large Cuckooshrike	<i>Coracina macei</i>	UC	Re
76	Scarlet Minivet	<i>Pericrocotus flammeus</i>	C	Re
	<b>Family: Rhipidurini</b>			
77	White-throated Fantail	<i>Rhipidura albicollis</i>	C	Re
	<b>Family: Dicrurini</b>			
78	Black Drongo	<i>Dicrurus macrocereus</i>	C	Re
79	White-bellied Drongo	<i>Dicrurus caerulescens</i>	UC	Re
80	Ashy Drongo	<i>Dicrurus lucophacus</i>	C	Ma (wv)
81	Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>	C	Re
	<b>Family: Monarchini</b>			
82	Black-naped Monarch	<i>Hypothymis azurea</i>	UC	Re
83	Asian Paradise Flycatcher	<i>Terpsiphone paradisi</i>	UC	Ma (sv)
	<b>Family: Aegithininae</b>			
84	Common Iora	<i>Aegithina tiphia</i>	UC	Re
	<b>Family: Malaconotinae</b>			
85	Common Woodshrike	<i>Tephrodornis pondicerianus</i>	UC	Re
	<b>Family: Saxicolini</b>			
86	White-rumped shama	<i>Copsychus malabaricus</i>	UC	Re
87	Oriental Magpie Robin	<i>Copsychus saularis</i>	C	Re
88	Indian Robin	<i>Saxicolodes falcata</i>	UC	Re
	<b>Family: Sturnidae</b>		C	
89	Brahminy starling	<i>Sturnus pogodarum</i>	C	Re
90	Asian Pied Starling	<i>Sturnus contra</i>	C	Re
91	Common Myna	<i>Acridotheres tristis</i>	C	Re
92	Jungle Mynah	<i>Acridotheres fuscus</i>	UC	Re
93	Hill Myna	<i>Gracula religiosa</i>	R	Re
	<b>Family: Paridae</b>			
94	Great Tit	<i>Parus major</i>	UC	Re
	<b>Family: Cisticolidae</b>			
95	Grey-breasted prinia	<i>Prinia hodgsonii</i>	R	Re
96	Jungle prinia	<i>Prinia sylvatica</i>	R	Re
97	Plain prinia	<i>Prinia inornata</i>	R	Re
	<b>Family: Zosteropidae</b>			
98	Oriental white-eye	<i>Zosterops palpebrosus</i>	C	Re
	<b>Family: Pycnonotidae</b>			
99	Red Whiskered Bulbul	<i>Pycnonotus jocosus</i>	UC	Re
100	Red Vented Bulbul	<i>Pycnonotus cafer</i>	C	Re
	<b>Family: Sylviidae</b>			
101	Common Tailor-bird	<i>Orthotomus sutorius</i>	C	Re
	<b>Family: Sylviinae</b>			
102	Common Babler	<i>Turdoides caudatus</i>	C	Re
103	Jungle Babbler	<i>Turdoides stritus</i>	C	Re
	<b>Family: Alandidae</b>			
104	Ashy-crowned Sparrow Lark	<i>Eremopterix grisea</i>	UC	Re
105	Rufous-tailed Lark	<i>Ammomanes pnoeniocurus</i>	UC	Re
	<b>Family: Nectariniidae</b>			
106	Purple-rumped Sunbird	<i>Nectarinia zylonica</i>	C	Re
107	Purple Sunbird	<i>Nectarinia asiatica</i>	C	Re
108	Crimson Sunbird	<i>Aethopyga siparaga</i>	UC	Re

	<b>Family: Passeridae</b>			
109	House Sparrow	<i>Passer domesticus</i>	C	Re
	<b>Family: Motacillinae</b>			
110	Forest Wagtail	<i>Dendronanthus indicus</i>	C	Ma (wv)
111	Yellow Wagtail	<i>Motacilla flava</i>	C	Ma (wv)
112	White Wagtail	<i>Motacilla alba</i>	C	Ma (wv)
113	White Browed Wagtail	<i>Motacilla maderaspatensis</i>	UC	Re
114	Grey Wagtail	<i>Motacilla cinerea</i>	C	Re
115	Paddy Field Pipit	<i>Anthus rufulus</i>	C	Re
116	Tree Pipit	<i>Anthus trivialis</i>	UC	Re
	<b>Family: Ploceinae</b>			
117	Baya Weaver	<i>Ploceus philippinus</i>	UC	Re
	<b>Family: Estrildinae</b>			
118	Green avadavat	<i>Amandava formosa</i>	UC	Re
119	Indian Silverbill	<i>Lonchura malabarica</i>	UC	Re
120	Black-headed Munia	<i>Lonchura malacca</i>	C	Re
121	White Rumped Munia	<i>Lonchura striata</i>	UC	Re
122	Scaly Breasted Munia	<i>Lonchura punctulata</i>	UC	Re

Abbreviations: C- Common, UC- Uncommon, R- Rare, Re- Residence, Ma- Migratory, WV- Winter visitor and SV- Summer visitor



**Fig 1:** Map of the study area Result & Discussion

### 3. Result & Discussion

A total of 122 species of birds belonging to 15 orders and 49 families have been reported from Athgarh Forest Division (Table-1). Among the 15 orders: Passeriformes dominated the list with 56 species Ciconiiformes with 20 species, Strigiformes with 8 species, Piciformes with 7 species, Coraciiformes with 6 species, Columbiformes and Cuculiformes with 5 species Psittaciformes, Gruiformes and Galliformes with 3 species each, Apodiformes with 2 species, Bucerotiformes, Trogoniforme Turniciformes and Upupiformes with 1 species each.

The taxonomy and nomenclature are used as per Inskipp et al. (1996), while common name is based on Grimmett et al. (2001). According to frequency of sighting of birds 66 species (50%) were common, 46 species (35%) were uncommon and 9 species (7%) were rare. 11 water bird species were recorded from Athgarh Forest Division during the study period. Besides these, water dependent birds such as Black Kite, Crested serpent eagle, Brown fish owl, Kingfisher (Common and white breasted), Wagtails (Forest, yellow, white, grey, white browed) were also seen regularly around the water bodies of Division. 9 bird species were migratory, of which 6 were winter visitor and 3 were summer visitors. Some water birds that are known to breed in Indian heronries, namely Little Cormorant *Phalacrocorax niger*, Indian Cormorant *Phalacrocorax carbo*, Darter *Anhinga rufa*, Little Egret *Egretta garzetta*, Grey Heron *Ardea cinerea*, Large Egret *Egretta alba*, Median Egret *Egretta intermedia*, Cattle Egret *Bubulcus ibis*, Indian Pond-Heron *Ardeola grayii*, Black-crowned Night-Heron *Nycticorax nycticorax*, Asian Openbill-Stork *Anastomus oscitans*,

### 4. References

- Acharya S, Kar SK. Checklist of waders (Charadriiformes) in Chilika lake, Orissa. Newsletter for Birdwatchers 1996; 36(5): 89-90.
- Acharya S, Kar SK, Bohidar K. Threats to waterfowl and its conservation measures in Chilika lake, Pranikee 1997; 17 & 18: 21-27.
- Acharya S, Kar SK, Bohidar K. Habitat utilization by shorebirds. (Charadriiformes) wintering in Chilika lake, Orissa. Pranikee 1999; 13&14:39-46.
- Ball V. Notes on birds observed in the region between the Mahanadi and Godavari rivers. Stray Feathers 1877; 5:410-420.
- Beeheler BM, Krishna RKS, Ali S. Avian use of man-disturbed forest habitats in the Eastern ghats, India. Ibis 1985; 129:197-211.
- Gopi GV, Pandava B. Observation on breeding biology of three stork species in Bhitarkanika mangroves, India. Indian Birds 2007a; 3(2):45-50.
- Gopi GV, Pandava B. Avifauna of Bhitarkanika Mangroves, India. Zoo's Print Journal 2007b; 22(10):2839-2847.
- Gopi GV, Jena AK, Pandava B. Bhitarkanika Wildlife Sanctuary (Orissa), a key congregation area for Indian skimmer *Rynchops albicollis* Birding Asia 2006; 5:78.
- Kar SK, Sahu HK. Preliminary study on ecology of aquatic birds in Chilika lake, Orissa. Proc. First National seminar on changing scenerio of Bird Ecology and Conservation, Bangalore, 1993, 62-64.
- Kar SK, Sahu HK. Study on feeding pattern of Anatids in Nalaban sanctuary of Chilika lake, Orissa, Proc. 42nd Annual Conference-Zoological Society of Orissa and First Zoological Congress, Orissa, Khurda 1999, 5.
- Kar SK, Sahu HK, Acharya S. Ringing or banding of birds during 1993 migration season at Nalaban (Chilika) wildlife sanctuary, Orissa. Bihang Journal 1999; 1(4):13.
- Mukherjee AK. On a collection of birds from the Similipal hills, Mayurbhanj district, Orissa. Rec Indian Mus 1952; 50:157-71.
- Nayak A. Preliminary Field Guide to the Birds of Bhitarkanika Mangrove Forest Division (Wildlife), Rajnagar, Orissa, 2003a, 32.
- Nayak A. Seasonal diversity of kingfishers in Bhitarkanika National Park, Orissa. Indian Forester 2005; 131(12):1559-1563.
- Pandav B. Birds of Bhitarkanika Mangroves, eastern India. Forktail 1997; 12:7-17.
- Ripley SD. Changes in the bird fauna of a forest area; Similipal hills, Mayurbhanj district and Dhenkanal district, Orissa. J Bombay Natural Hist Soc 1978; 75:570-574.
- Sahu HK, Kar SK. Study in population status of aquatic birds in Nalaban sanctuary, Chilika lake, Orissa. Pranikee 1999; 19&20:11-15.
- Sahu HK, Kar SK. Habitat utilization of Anatids (Family:Anatidae) in Nalaban sanctuary of Chilika lake, Orissa, India, Proc. Ninth All India Cong. Zool and National Symposium on Zoological Research in 21st century 2000, 127-128.
- Sahu HK, Rout SD. Checklist of Water birds in Mayurbhanja District, Orissa. Zoo's Print Journal 2005; 20(9):1992-1993.
- Singh LAK. Survey of raptors seen in Similipal Tiger Reserve, Orissa. Bihang Newsletter 1993; 1(2):5-6.
- Singh LAK, Rout SD. Range extension of southern Black-headed munia. *Lonchura malacca malacca* Bihang Newsletter 1992; 1(1):20.
- Singh LAK, Srivastava SS, Rout SD. Observations on nesting ecology of blackheaded munia (*Lonchura malacca malacca*). Zoos' Print Journal 2001; 16(2):423-427.