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## **MAMMALIAN AND AVIAN FAUNA OF SOME SELECTED AREAS OF PURULIA DISTRICT, WEST BENGAL**

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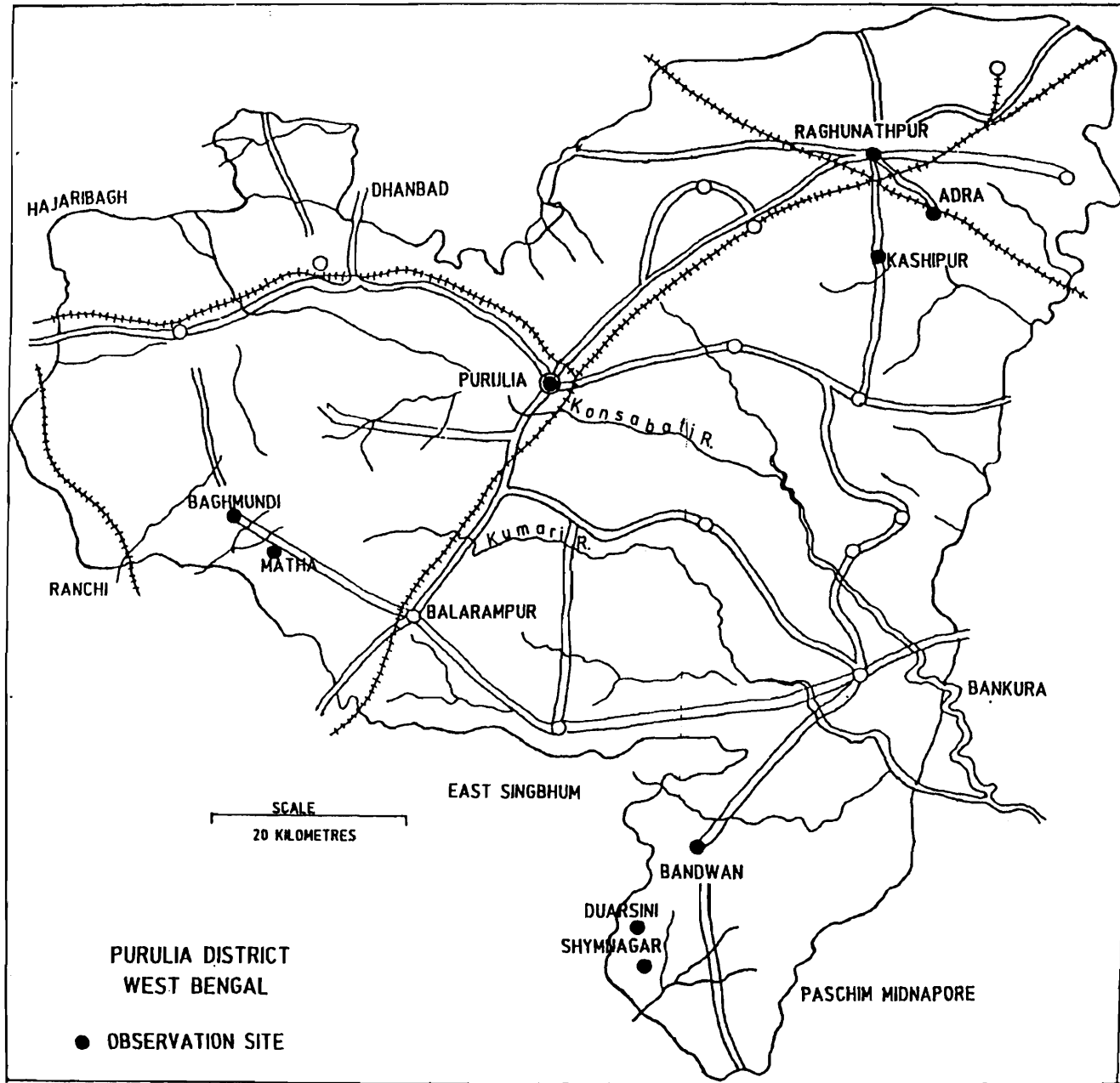
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### **INTRODUCTION**

Surveys on mammalian and avian fauna of Raghunathpur, Banduan and Baghmundi areas of Purulia district were undertaken in the year 2001 and 2002. The Geographical area of the district is 6,259 sq. km. and the total forest area is 876 sq. km., the net-cropped area is 294.9 thousand hector. The rest is either wasteland or converted into plantation from wasteland. Presently, the forest Department of West Bengal has started intensive plantation in the degraded areas and for that Wildlife may be little assured for their extended home range (Chakraborty & Kar, 2004). The forests dealt within the district are scattered more or less all over the area with main concentration in south, south-western and southern sides. So far literature concern no extensive work has been done in the study areas. So special efforts were made to survey the wildlife with special reference to mammals and birds of the areas. The systematic lists of mammals and birds have been treated after Ellerman & Morrison-Scott (1951) and Ripley (1982) respectively. The species of both mammals and birds belonging to schedules of Indian wildlife (Protection) Act, have been followed by Alfred *et al.*, (2002) and Anon (1995).

### **TOPOGRAPHY, CLIMATE AND VEGETATION**

District Purulia is the westernmost district of West Bengal (Map-I) and lies between 22°43' and 24°4' North Latitude and 85°49' and 86°54' East Latitude. It is bounded in the north by Damodar river, western and southern sides by Dhanbad, Giridi, Hazaribag and Singhbhum district respectively. Most of the eastern side is bounded by Bankura district while in the south-east lies Midnapore and Bardwan districts respectively. The district as a whole has a feature of gently undulating topography with occasional hillocks of hard rocks. The soil is an infertile laterite and alluvial type.



Map 1 : Map of Purulia district (West Bengal).

In Raghunathpur most of the areas are plain land like Koshipore, Sadiah, Motizeel and only a few hilly areas are present like Joychandi and Eksira hill etc. with more cultivation and fallow lands. There is more planted forest and less natural forest land in comparison to Banduan and Baghmundi areas. The Banduan area comprises of both hilly areas like Duarsini, Bhalopahar, Shyamnagar, Chirudi, Ghagrakeshira, Kuilapal with comparatively less plain lands i.e. cultivations and fallow lands. These areas are enriched with large natural forest in comparison to Raghunathpore areas. The Baghmundi areas are also hilly zones and less plain lands and the vegetations are more or less like that of Banduan areas. In Baghmundi areas there are some series of isolated groups of hills in the north-east which extends to the south-western side to form a regular hilly range known as Ajodhya pahar ending abruptly in Matha.

The climate is generally much drier. The district is well known as a drought prone district and falls within the semi-arid region of West Bengal and is characterized by high evaporation and low precipitation and has a sub-tropical climate. The temperature varied from 7°C to 46°C from winter to summer. The humidity is very low with high temperature during summer months until monsoon shower arrives in the month of June. Then again after the shower is over the humidity gradually falls low from the month of October and remains as such throughout the winter season. The normal average rainfall is 1180 mm. The forests dealt with in district are situated scattered more or less all over the area with main concentration in south, south-western and southern sides. The forests are mostly tropical dry deciduous type and is characterized by fine Sal, miscellaneous forests, shrubs and creepers etc. The natural and valuable forests of the district are confined in Banduan areas i.e. in Duarsini, Chirudi and Kuilapal areas bordering the West Midnapore in east and forests of Jharkhand state in south and west. The Baghmundi and Matha are hilly areas and the flora is mixture of Sal and miscellaneous forests, Shrubs and Creepers etc. In those areas apart from natural vegetation the Forest Dept. has planted various types of trees like Sal, Akashmani, Subaul etc. The main trees, shrubs and creepers and grasses are :- *Acacia auriculiformis* (Akashmoni), *Mangifera indica* (Mango), *Phyllanthus omblica* (Amla), *Spondias mangifera* (Amra), *Terminalia arjuna* (Arjun), *Terminalia blerica* (Bahera), *Aegle marmalos* (Bel), *Ficus bengalensis* (Banyan), *Dellenia indica* (Chalta), *Ficus hispia* (Dumur), *Syzygium balsameum* (Jam), *Artocarpus integrifolia* (Kanthal), *Bauhinia perpura* (Kanchan), *Phoenix sylvestris* (Khejur), *Schlerichera trifuga* (Kusum), *Diospyros melanoxylon* (Kendu), *Bassia latifolia* (mahua), *Butea frondosa* (Palash), *Buichanania latifolia* (Piasal), *Shorea robustia* (Sal), *Dulbergia lanceolaria* (Siris), *Lagerstroemia parvifolia* (Sidha), *Tamarindus indica* (Tentul), *Calotropis gigantia* (Akanda), *Eupatorium odoratum* (Asamlata), *Ipomia cornea* (Dholkamli), *Ocimum camum* (Bantulsi), *Lantana camara* (Bhutbairabi), *Datura atramonium* (Dhutra), *Sparagus recomosus* (Satamuli), *Mucana pruriona* (Alkusi), *Acacia pennata* (Biswal), *Ichnocarpus frutescena* (Dudhilata), *Butea superba* (Latapalash), *Chrysopogon aciculata* (Chorkata), *Gmelina arborea* (Bena), *Cygnopogon amyraeae* (Babuigrass), *Cynodon dactylon* (Durba) etc.

## MATERIALS AND METHODS

The surveys were made on foot on hills, forests and plain lands. Two field trips, one in each year, were undertaken in the month November. The first trip was for 10 days from 4.11.01 to 13.11.01. The second trip was for 13 days from 10.11.02 to 22.11.02. During the survey different species of mammals and birds were recorded from those areas. The observations were made in hilly areas, plain lands, road side, a few water bodies (which are not abundant in those areas), forests and agriculture fields. The species were recorded by direct observations and sometimes by collecting informations from the local people and personnels of the district forest department. The observations were mostly carried out by using Binocular for visual recording. Sometimes nocturnal observations were carried out by using headlight, spot-light and three celled torch. The main observations hour were daily from 6.30 AM to 12 AM for three to four days in each area.

## OBSERVATION AND RESULTS

### Mammals : (Fig 1–3)

A list of 28 species of mammals were recorded and their regionwise abundance and status are given in Table-I. Among 28 species of mammals three are placed in Schedule-I of the Wildlife (Protection) Act. They are Wolf, Sloth Bear and Indian Elephant. Some of other species of mammals, occur in the areas, are Madras Tree-Shrew, Indian flying Fox, Indian Pipistrelle, Hanuman Langur, Asiatic Jackal, Indian Fox, Jungle cat, Mongoose, Common Palm Civet, Wild Boar, Northern Palm Squirrel, Palm Squirrel, Indian Crested Porcupine, Blacknaped Hare, House Mouse, Indian Brown Spiny Mouse, Palm Mouse, Elliot's Spiny Mouse, Lesser Bandicoot Rat, Tree Rat and Antelope Rat etc.

The Madras Tree Shrew (*Anathana ellioti*) mainly lives on insects and fruits, is an endemic one in India since its discovery and has been wiped out from many areas of its earlier range mainly due to extension of agriculture fields (Alfred and Chakraborty, 2002). The Indian Flying Fox (*Pteropus giganteus*) is the largest Indian bats, roots during the day in large noisy colonies on trees leaving within half an hour after sunset and feeds only on juice of fruits. This is the most conspicuous and a common bat of West Bengal and observed in all the districts in rural and as well as urban areas (Agrawal *et al.* 1992). The Sloth Bear (*Melursus ursinus*) is nocturnal and feeds mainly on fruits and insects. This species is at present an endangered one due to severe declination of its population. The reason of its declination is the destruction of its habitat for human use and was killed in the past for its bile that was used in medicine (Tikadar, 1983). Indian Wild Boar (*Sus scrofa cristatus*) is diurnal as well as nocturnal and found in groups. Adult male lives singly except during matting period, live in shelters in tall grasses and feeds on grasses, roots, carrion, snakes, insects and cultivated crops. This species was once very common in all the districts of West Bengal. But now it is restricted

to Darjeeling, Jalpaiguri, Purulia, West Dinajpur, North and South 24-Parganas districts. Main reasons of its decline are habitat destruction and poaching for flesh (Agrawal, *et al.* 1992).

The Elephant (*Elephas maximus*) migration is one of the burning problems of the district as they severely damage the crops every year. The herds of Elephant migrate in the district from Dalma range of Jharkhand State mainly during winter season especially when rice are ripen. As a result conflict between man and elephant has become inevitable. The survival of the elephant outside the protected areas can only be assured if appropriate measures are adopted to reduce the human-elephant conflict. They may migrate in the district in other season also but mostly favour winter season. Though it has been stated that the elephant is a casual visitor to other district of West Bengal except Jalpaiguri, Darjeeling and Midnapore district (Anon 1992), the informations were recorded from the forest department and local people of the districts that a few elephants are resident of this district at present.

The Wolves (*Canis lupus*) live in rocky hills in dry open country around human habitations, nocturnal in habit and hunts fox, hare, sheep, goat etc. (Tikadar, 1983). The majority of wolf population in India survive outside the protected areas and subsists primarily on livestock (Jhala, 2003). In a village near Duarsini under Banduan area one of such incident of hunting of domestic goat by the wolf has been recorded. This species was once very common in the district but at present their population has become very low as a result of increased human settlement, persecution by man for the commercial value of its fur. So, this species has been included in schedule-I of the Wildlife (Protection) Act. This steps completely ban its killing or trade in its parts (Anon, 1994).

#### **Birds : (Fig 4–7)**

A total of 98 species of birds were recorded (Table-2). Among them 4 species are placed in scheduled-I of Indian Wildlife (Protection) Act. They are Crested Serpent Eagle, Honey Buzzard, Shikra belonging the family Accipitridae and common Pea fowl belonging to family Phasianidae. Some of the other species in those areas are Heron, Egret, Stork, Lesser Adjutant, Teal, Kite, Vulture, Partridge, Quail, Jungle Fowl, Moorhen, Jacana, Snipe, Sandpiper, Lapwing, Tern, Dove, Pigeon, Parakeet, Cuckoo, Koel, Coucal, Owl, Nightjar, Swift, Kingfisher, Bee eater, Indian Roller, Barbet, Wood Pecker, Shrike, Oriole, Drongo, Myna, Tree Pie, Jungle Crow, Minivet, Bulbul, Flycatcher, Warbler, Chiffchaff, Robin, Bushchat, Spider hunter, White Eye, Weaver Bird, Munia, Larks etc.

The Lesser Adjutant (*Leptoptilos javanicus*) is a resident and locally migratory bird, normally solitary, occurs in well watered country feeds on fish, frogs, reptiles and invertebrates (Ali, 1996). It has been mentioned in the Fauna of West Bengal Part-I that in West Bengal this species occurs in Bardwan district only (Majumder *et al.*, 1992). But during the survey in 2001, one of the species was observed and recorded from Banduan area near Duarsini on the way to Balarampur in Purulia district. This species has also been recorded by the authors from Sundarban Tiger reserve of North

24-Paraganas district during 2000-01. This species was once very common throughout India but at present has experienced rapid declines and become rare due to habitat loss, hunting and disturbance of colonies by cutting of tall trees and damaging of wetland feeding side (Kumar *et al.*, 2005).

Only one Blackwinged Kite, (*Elanus caeruleus*) was recorded in the early morning on the way to Duarsini from Banduan town. Their population is very low, usually met with single or in pairs, activities resume in early morning and late evening (Mukherjee, 1995). The Vulture was once a very common bird throughout India. But at present their population has greatly run down perhaps due to out break of disease, chemical contamination and poisoning. The common Peafowl, *Pavo cristatus* was once widely distributed throughout the country. At present this species found in parts of West Bengal, Bihar, Orissa and Peninsular India but abundant in Gujrat and Rajasthan. Now there is no severe threat of this species primarily for its status as a National Bird and secondarily due to religious belief and this species is protected and included in Schedule-I of the Wildlife (Protection) Act (Anon, 1994). The Barbets are predominantly frugivorous but during the breeding seasons all species feed their young with insects. They help in seed dispersal and pollination and thus play an important role in maintaining the rich biodiversity of the country and they deserve conservation priority (Yahya, 2000).

## DISCUSSION

Out of systematic lists mentioned in Table-1 & 2 the mammalian fauna represents three species—Wolf, Sloth Bear and Elephant are coming under Schedule-I. Five species—Hanuman Langur, Jackal, Indian Fox, Jungle Cat and Common Palm Civet are placed in Schedule-II, the Wild Boar is placed in Schedule-III, seven species—Indian Flying Fox, Indian Grey Mongoose, Indian Crested Porcupine, Black-napped Hare, House Mouse, Lesser Bandicoot Rat, Tree Rat, Indian Brown Spiny Mouse, Palm Mouse, Elliot's Spiny Mouse. Antelopes Rat etc. are placed in Schedule-V of the Indian Wildlife (Protection) Act. The majority of the avifauna are coming under Schedule-IV except Crested Serpent Eagle, Honey Buzzard, Shikra and Common Peafowl are listed under Schedule-I of the Indian Wildlife (Protection) Act.

The number of species of mammals of Banduan areas (28 species) and Baghmundi areas (27 species) are more or less same because both the areas are belonging more or less similar habitations. In Raghunathpur areas (19 species) the number of species of mammals are comparatively less than that of other mentioned areas. Because this area consisting of mainly plain lands with a few hilly areas where human habitation is more and causing the barrier for animal habitations. Hence in the Raghunathpur areas the numbers of mammalian species are lower than other two areas. The number of species of birds in Banduan areas (93 species) and Baghmundi areas (94 species) are fairly represented in comparison to Raghunathpur areas (75 species). Because the Banduan and the Baghmundi areas are more enriched with the vegetations in comparison to Raghunathpur areas.

Due to enriched vegetations and habitats the birds get there suitable shelter and necessary enough food like fruits, seeds, nectar, buds and fleshy petals of flower, insect etc. Hence the richness and diversity of species depends upon availability of food and safe shelter of the habitat (Nandy *et al.*, 2004) and it has been observed that the species diversity of birds and mammals are more in natural forests areas (Baghmundi and Banduan) in comparison to more planted forest areas (Raghunathpur).

In Purulia district there are small to large villages established in the forest area in between the forest lands or at the foothills which is a indicator of poor forest management and ultimately initiates evacuation of many wild species from the areas (Chakraborty and Kar, 2004). Though the Forest Department has taken protective measures to save the varied ecosystem and faunal diversity of the district yet illegal poaching, hunting and cutting of wood is still going on. Therefore Forest Department of the district should take more protective measures to protect those species specially belong to Scheduled of Wildlife (Protection) Act. 1972.

### SUMMARY

In the survey areas the mammalian fauna is represented by as many as 28 species, of these 3 species are endangered and listed in Schedule-I, 5 species in Scheduled-II, one species in Scheduled-III, and 4 species in Scheduled-IV and 7 species in Scheduled-V of the Indian Wildlife (Protection) Act, 1972. The avifauna is represented by 98 species of which 4 species are endangered and listed in Scheduled-I and the majority of the rest species are listed in Schedule-IV of the Indian Wildlife (Protection) Act 1972. The richness and diversity of species depends upon availability of food and safe shelter of the habitat.

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**Table 1. :** Systematic list of Mammals Recorded from Raghunathpur, Banduan and Baghmundi areas showing area wise abundance and status. R = Resident, M = Migratory, ++ = Common, + = Rare, - = Not Observed

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
1.	<b>Order : SCANDENTIA</b> <b>Family: TUPAIIDAE</b> <i>Anathana ellioti</i> Lyon	Madras Tree-Shrew	-	+	-		R
2.	<b>Order : INSECTIVORA</b> <b>Family: SORICIDAE</b> <i>Suncus murinus</i> (Linnaeus)	House Shrew	++	++	++		R
3.	<b>Order : CHIROPTERA</b> <b>Family: PTEROPODIDAE</b> <i>Pteropus giganteus</i> (Brünnich)	Indian Flying Fox	+	+	+		R
4.	<i>Cynopterus sphinx sphinx</i> (Vahl)	Short-nosed Fruit Bat	+	++	++		R
5.	<b>Family: VESPERTILIONIDAE</b> <i>Pipistrellus mimus</i> Wroughton	Indian Pygmy Pipistrelle	++	++	++		R
6.	<i>Scotophilus kuhlii kuhlii</i> Leach	Asiatic Lesser Yellow Bat	-	++	++		R
7.	<b>Order : PRIMATES</b> <b>Family: CERCOPITHECIDAE</b> <i>Semnopithecus entellus</i> (Dufresne)	Hanuman Langur	-	+	+	Sch-II	R
8.	<b>Order : CARNIVORA</b> <b>Family: CANIDAE</b> <i>Canis aureus</i> Hodgson	Asiatic Jackal	+	+	+	Sch-II	R
9.	<i>Canis lupas</i> Sykes	Wolf	+	+	+	Sch-I	R
10.	<i>Vulpes bengalensis</i> (Shaw)	Indian Fox	+	+	+	Sch-II	R

Sch-Schedule under Wildlife (Protection) Act.

Table 1. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
11.	<b>Family: FELIDAE</b> <i>Felis chaus</i> Hodgson	Jungle Cat	-	+	+	Sch-II	R
12.	<b>Family: HERPESTIDAE</b> <i>Herpestes edwardsii</i> (E. Geoffery Saint-Hilaire)	Indian Grey Mongoose	++	++	++	Sch-IV	R
13.	<i>Herpestes auropunctatus</i> (Hodgson)	Small Indian Mongoose	++	++	++	Sch-IV	R
14.	<b>Family: URSIDAE</b> <i>Melursus ursinus</i> (Shaw)	Sloth Bear	-	+	+	Sch-I	R
15.	<b>Family: VIVERRIDAE</b> <i>Paradoxurus hermaphroditus</i> (Pallas)	Common Palm Civet	++	++	++	Sch-II	R
16.	<b>Order : ARTIODACTYLA</b> <b>Family: ELEPHANTIDAE</b> <i>Elephas maximus</i> Cuvier	Indian Elephant	-	++	++	Sch-I	M
17.	<b>Order : ARTIODACTYLA</b> <b>Family: SUIDAE</b> <i>Sus scrofa</i> Wagner	Wild Boar	-	++	++	Sch-III	R
18.	<b>Order : RODENTIA</b> <b>Family: SCIURIDAE</b> <i>Funambulus palmarum</i> (Linnaeus)	Indian Palm Squirrel	++	++	++		R
19.	<i>Funambulus pennantii</i> Wroughton	Northern Palm Squirrel	-	+	+		R
20.	<b>Family: HYSTRICIDAE</b> <i>Hystrix indica</i> (Kerr)	Indian Crested Porcupine	+	+	+	Sch-IV	R

Table 1. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
	<b>Family: MURIDAE</b>						
21.	<i>Mus musculus</i> Hodgson	House Mouse	++	++	++	Sch-V	R
22.	<i>Bandicota bengalensis</i> Grey & Hardwicke	Lesser Bandicoot Rat	++	++	++	Sch-V	R
23.	<i>Ratus ratus arboreus</i> (Horsfield)	Tree Rat	++	++	++	Sch-V	R
24.	<i>Mus platythrix</i> Bennett.	Indian Brown Spiny Mouse	++	++	++	Sch-V	R
25.	<i>Tatera indica</i> (Hardwicke)	Antelope Rat	-	++	++	Sch-V	R
26.	<i>Mus saxicola</i> Elliot.	Elliot's Spiny Mouse	++	++	++	Sch-V	R
27.	<i>Vandeleuria oleracea</i> (Bennett.)	Palm Mouse	++	++	++	Sch-V	R
	<b>Order : LAGOMORPHA</b>						
	<b>Family: LEPORIDAE</b>						
28.	<i>Lepus nigricollis</i> Geoffroy	Black-naped Hare	++	++	++	Sch-IV	R
	<b>Total number of species</b>		<b>19</b>	<b>28</b>	<b>27</b>		

**Table 2. :** Systematic list of Birds recorded from Raghunathpur, Banduan and Baghmundi areas showing area wise abundance and status.

R = Resident, SLM = Subject to local migrant, WM = Winter migratory. ++ = Common, + = Rare, -- = Not Observed.

List of Birds							
Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
<b>Order : PELECANIFORMES</b>							
<b>Family: PHALACROCORACIDAE</b>							
1.	<i>Phalacrocorax fuscicollis</i> Stephens	Indian shag	+	-	-	Sch-IV	R
2.	<i>Phalacrocorax niger</i> (Vieillot)	Little Cormorant	++	+	+	Sch-IV	R
<b>Order : CICONIIFORMES</b>							
<b>Family: ARDEIDAE</b>							
3.	<i>Ncticorax ncticorax</i> (Linnaeus)	Night Heron	++	+	+	Sch-IV	R
4.	<i>Ardeola grayii</i> (Sykes)	Pond Heron	++	++	++	Sch-IV	R
5.	<i>Bubulcus ibis</i> (Linnaeus)	Cattle Egret	++	++	++	Sch-IV	R
6.	<i>Egretta intermedia</i> (Wagler)	Smaller Egret	++	++	++	Sch-IV	R
7.	<i>Egretta garzetta</i> (Linnaeus)	Little Egret	++	++	++	Sch-IV	R
<b>Family: CICONIIDAE</b>							
8.	<i>Anastomus oscitans</i> (Boddaert)	Openbill Stork	++	+	+	Sch-IV	R
9.	<i>Leptoptilos javanicus</i> (Horsfield)	Lesser Adjutant	-	+	-	Sch-IV	RSLM
<b>Order : ANSERIFORMES</b>							
<b>Family: ANATIDAE</b>							
10.	<i>Anas crecca</i> Linnaeus	Common Teal	++	-	-	Sch-IV	W.M.
<b>Order : FALCONIFORMES</b>							
<b>Family: ACCIPITRIDAE</b>							
11.	<i>Milvus migrans</i> (Boddaert)	Pariáh Kite	++	+	+		R
12.	<i>Elanus caeruleus</i> (Desfontaines)	Black Winged Kite	-	+	-		R
13.	<i>Spilornis cheela</i> (Latham)	Crested Serpent Eagle	-	+	+	Sch-I	RSLM

Sch-Schedule Under Wildlife (Protection) Act.

Table 2. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
14.	<i>Pernis ptilorhyncus</i> (Temminck)	Honey Buzzard	-	+	+	Sch-I	RSLM
15.	<i>Accipiter badius</i> (Gmelin)	Shikra	+	+	+	Sch-I	R
16.	<i>Gyps bengalensis</i> (Gmelin)	Bengal Vulture	-	+	+	Sch-IV	R
<b>Order : GALLIFORMES</b>							
<b>Family: PHASIANIDAE</b>							
17.	<i>Francolinus pondicerianus</i> (Gmelin)	Grey Partridge	-	++	++	Sch-IV	R
18.	<i>Perdica asiatica</i> (Latham)	Jungle Bush Quail	-	+	+	Sch-IV	R
19.	<i>Coturnix coromandelica</i> (Gmelin)	Rain Quail	-	+	+	Sch-IV	R
20.	<i>Gallus gallus</i> (Linnaeus)	Red Jungle Fowl	-	++	++	Sch-IV	R
21.	<i>Pavo cristatus</i> Linnaeus	Common Peafowl	-	++	++	Sch-I	R
<b>Order : GRUIFORMES</b>							
<b>Family: TURNICIDAE</b>							
22.	<i>Turnix suscitator</i> (Gmelin)	Common Bustard Quail	-	+	+	Sch-IV	R
23.	<i>Turnix tanki</i> Blyth	Button Quail	-	+	+	Sch-IV	R
<b>Family: RALLIDAE</b>							
24.	<i>Gallinula chloropus</i> (Linnaeus)	Moorhen	+	-	++	Sch-IV	RSLM
25.	<i>Amaurornis phoenicurus</i> (Pennant)	Whitebreasted Waterhen	++	++	++		R
<b>Order : CHARADRIIFORMES</b>							
<b>Family: JACANIDAE</b>							
26.	<i>Metopidius indicus</i> (Latham)	Bronzewinged Jacana	+	-	++	Sch-IV	R
<b>Family: CHARADRIIDAE</b>							
27.	<i>Gallinago gallinago</i> (Linnaeus)	Fantail Snipe	++	++	++	Sch-IV	R
28.	<i>Tringa hypoleucos</i> (Linnaeus)	Common Sand Piper	++	++	+	Sch-IV	R & WM
29.	<i>Vanellus malabaricus</i> (Boddaert)	Yellow-wattled Lapwing	++	+	+		RSLM

Table 2. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
<b>Order : COLUMBIFORMES</b> <b>Family: COLUMBIDAE</b>							
30.	<i>Streptopelia decaocto</i> (Frivaldszky)	Indian Ring Dove	++	++	++	Sch-IV	R
31.	<i>Streptopelia chinensis</i> (Scopoli)	Spotted Dove	++	++	++	Sch-IV	R
32.	<i>Streptopelia senegalensis</i> (Linnaeus)	Little Brown Dove	+	+	+		RSLM
33.	<i>Treron bicincta</i> (Jerdon)	Orangebreasted Green Pigeon	-	++	++	Sch-IV	R
34.	<i>Treron phoenicoptera</i> (Latham)	Green Pigeon	+	++	+	Sch-IV	R
<b>Order : PSITTACIFORMES</b> <b>Family: PSITTACIDAE</b>							
35.	<i>Psittacula eupatria</i> (Linnaeus)	Alexandrine Parakeet	++	++	++	Sch-IV	R
36.	<i>Psittacula cyanocephala</i> (Linnaeus)	Blossomheaded Parakeet	+	++	++	Sch-IV	R
<b>Order : CUCULIFORMES</b> <b>Family: CUCULIDAE</b>							
37.	<i>Cuculus varius</i> Vahl	Common Hawk-Cuckoo	+	+	+	Sch-IV	R
38.	<i>Cuculus canorus</i> Linnaeus	The Cuckoo	+	+	+	Sch-IV	R
39.	<i>Eudynamys scolopacea</i> (Linnaeus)	Koel	++	++	++	Sch-IV	R
40.	<i>Centropus sinensis</i> (Stephens)	Coucal	++	++	++	Sch-IV	R
<b>Order : STRIGIFORMES</b> <b>Family: STRIGIDAE</b>							
41.	<i>Otus bakkamoena</i> Pennant	Collared Scops Owl	-	+	+	Sch-IV	R
42.	<i>Otus scops</i> (Linnaeus)	Scops Owl	+	++	++	Sch-IV	R
43.	<i>Bubo zeylonensis</i> (Gmlin)	Brown Fish Owl	+	+	+	Sch-IV	R
44.	<i>Glaucidium radiatum</i> (Tickell)	Jungle Owlet	-	++	++	Sch-IV	R
45.	<i>Athena brama</i> (Temminck)	Spotted Owlet	++	+	+	Sch-IV	R

Table 2. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
	<b>Order : CAPRIMULGIFORMES</b> <b>Family: CAPRIMULGIDAE</b>						
46.	<i>Caprimulgus indicus</i> Latham	Jungle Nightjar	+	++	++	Sch-IV	R
47.	<i>Caprimulgus asiaticus</i> Latham	Common Indian Nightjar	++	++	++	Sch-IV	R
	<b>Order : APODIFORMES</b> <b>Family: APODIDAE</b>						
48.	<i>Cypsiurus parvus</i> (Lichtenstein)	Palm Swift	++	+	++		R
	<b>Order : CORACIIFORMES</b> <b>Family: ALCEDINIDAE</b>						
49.	<i>Alcedo atthis</i> (Linnaeus)	Small Blue Kingfisher	++	++	++	Sch-IV	R
50.	<i>Halcyon smyrnensis</i> (Linnaeus)	Whitebreasted Kingfisher	+	++	++	Sch-IV	R
51.	<i>Ceryle rudis</i> (Linnaeus)	Lesser Pied Kingfisher	++	++	++	Sch-IV	R
	<b>Family: CORACIIDAE</b>						
52.	<i>Coracias benghalensis</i> (Linnaeus)	Indian Roller	+	+	+	Sch-IV	R
	<b>Family: MEROPIDAE</b>						
53.	<i>Merops orientalis</i> Latham	Green Bea-eater	++	++	++		R
	<b>Order : PICIFORMES</b> <b>Family: CAPITONIDAE</b>						
54.	<i>Megalaima asiatica</i> (Latham)	Bluethroated Barbet	++	++	++	Sch-IV	R
55.	<i>Megaliama haemacephala</i> (P.L.S. Muller)	Crimsonbreasted Barbet	++	++	++	Sch-IV	R
	<b>Family: PICIDAE</b>						
56.	<i>Dinopium benghalense</i> (Linnaeus)	Lesser Golden-backed Woodpecker	+	++	++	Sch-IV	R
57.	<i>Picoides mahrattensis</i> (Latham)	Yellowfronted Pied Woodpecker	+	++	++	Sch-IV	R

Table 2. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
	<b>Family: ALAUDIDAE</b>						
58.	<i>Eremopterix grisea</i> (Scopoli)	Blackbellied Finch Lark	++	++	++		R
59.	<i>Mirafra assamica</i> Horsfield	Bush Lark	++	++	++		R
	<b>Order : PASSERIFORMES</b>						
	<b>Family: LANIIDAE</b>						
60.	<i>Lanius cristatus</i> Linnaeus	Brown Shrike	++	++	++		WM
61.	<i>Lanius schach</i> Linnaeus	Rafousbacked Shrike	+	+	+		R
	<b>Family: ORIOLIDAE</b>						
62.	<i>Oriolus oriolus</i> (Linnaeus)	Golden Oriole	-	+	+	Sch-IV	R
63.	<i>Oriolus xanthornus</i> (Linnaeus)	Blackheaded Oriole	++	++	++	Sch-IV	R
	<b>Family: DICRURIDAE</b>						
64.	<i>Dicrurus adsimilis</i> (Bechstein)	Black Drongo	++	++	++	Sch-IV	R
65.	<i>Dicrurus aeneus</i> Vieillot	Bronzed Drongo	++	++	++	Sch-IV	R
66.	<i>Dicrurus hottentottus</i> (Linnaeus)	Haircrested Drongo	-	+	+	Sch-IV	R
	<b>Family: STURNIDAE</b>						
67.	<i>Sturnus malabaricus</i> (Gmelin)	Greyheaded Myna	++	++	++	Sch-IV	R
68.	<i>Sturnus contra</i> Linnaeus	Pied Myna	++	++	++	Sch-IV	R
69.	<i>Acridotheres tristis</i> (Linnaeus)	Common Myna	++	++	++	Sch-IV	R
70.	<i>Acridotheres fuscus</i> (Wagler)	Jungle Myna	++	++	++	Sch-IV	R
	<b>Family: CORVIDAE</b>						
71.	<i>Dendrocitta vagabunda</i> (Latham)	Indian Treepie	+	++	++	Sch-IV	R
72.	<i>Corvus macrorhynchos</i> Wagler	Jungle Crow	++	++	++		R



Table 2. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
<b>Family: CAMPEPHAGIDAE</b>							
73.	<i>Tephrodornis pondicerianus</i> (Gmelin)	Common Wood Shrike	+	-	+		R
74.	<i>Coracina novaehollandiae</i> (Gmelin)	Large Cuckoo Shrike	-	++	++		R
75.	<i>Pericrocotus cinnamomeus</i> (Linnaeus)	Small Minivet	++	++	++	Sch-IV	R
<b>Family: IRENIDAE</b>							
76.	<i>Aegithina tiphia</i> (Linnaeus)	Common Iora	++	++	++	Sch-IV	R
77.	<i>Chloropsis cochinchinensis</i> (Gmlin)	Goldmantled Chloropsis	++	++	++	Sch-IV	R
<b>Family: PYCNONOTIDAE</b>							
78.	<i>Pycnonotus jocosus</i> (Linnaeus)	Red Whiskerd Bulbul	-	+	+	Sch-IV	R
79.	<i>Pycnonotus cafer</i> (Linnaeus)	Redvented Bulbul	++	++	++	Sch-IV	R
<b>Family: MUSCICAPIDAE</b>							
80.	<i>Turdoides striatus</i> (Dumont)	Jungle Babbler	++	++	++	Sch-IV	R
81.	<i>Orthotomus sutorius</i> (Pennant)	Tailor Bird	++	++	++	Sch-IV	R
82.	<i>Muscicapa parva</i> Bechstein	Redbreasted Flycatcher	++	++	++	Sch-IV	WM
83.	<i>Muscicapa thalassina</i> Swainson	Verditer Flycatcher	-	++	++	Sch-IV	WM
84.	<i>Culicicapa ceylonensis</i> (Swainson)	Greyheaded Flycatcher	+	++	++	Sch-IV	RSLM
85.	<i>Rhipidura aureola</i> Lesson	Whitebrowed Fantail Flycatcher	-	+	+	Sch-IV	RSLM
86.	<i>Prinia socialis</i> Sykes	Ashy Wren-Warbler	++	+	+		RSLM
87.	<i>Phylloscopus collybita</i> (Vieillot)	Chiffchaff	-	+	+		WM
88.	<i>Copsychus saularis</i> Linnaeus	Magpie-Robin	++	++	++		R
89.	<i>Saxicola torquata</i> Linnaeus	Stone Chat	++	+	+		R

Table 2. : (Cont'd.).

Sl. No.	Species	Common Name	Raghunathpur	Banduan	Baghmundi	Status	Remarks
	<b>Family: MOTACILLIDAE</b>						
90.	<i>Anthus novaeseelandiae</i> Gmelin	Paddyfield Pipit	++	++	+	Sch-IV	R
91.	<i>Motacilla flava</i> Linnaeus	Yellow Wagtail	-	+	+		WM
92.	<i>Motacilla alba</i> Linnaeus	White Wagtail	++	+	++		WM
	<b>Family: DICAERIDAE</b>						
93.	<i>Dicaeum erythronhynchos</i> (Lathan)	Tickell's Flower pecker	++	+	+	Sch-IV	R
	<b>Family: NECTARINIIDAE</b>						
94.	<i>Nectarinia zeylonica</i> (Linnaeus)	Purplerumped Sunbird	++	++	++	Sch-IV	R
95.	<i>Nectarinia asitica</i> (latham)	Purple Sunbird	++	++	++	Sch-IV	R
	<b>Family: ZOSTEROPIDAE</b>						
96.	<i>Arachnothera longirostris</i> (Lathan)	Little Spiderhunter	++	+	+	Sch-IV	R
	<b>Family: PLOCEIDAE</b>						
97.	<i>Lonchura malaca</i> (Linnaeus)	Blackheaded Munia	++	+	+	Sch-IV	M
98.	<i>Ploceus philippinus</i> (Linnaeus)	Baya	++	++	++	Sch-IV	R
	<b>Total No. Species</b>		<b>75</b>	<b>93</b>	<b>94</b>		