

**A checklist of birds of Department of Atomic Energy Campus, Kalpakkam, Tamil Nadu  
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The Department of Atomic Energy (DAE) premises at Kalpakkam (12° 33' N and 80° 11' E) comprising of about 2500 acres is situated 60 km south of Chennai. At present, it houses Madras Atomic Power Station, Kalpakkam Atomic Reprocessing Plant, Nuclear Desalination Demonstration Project, Indira Gandhi Centre for Atomic Research and Bhabha Atomic Research Centre's Facilities. Apart from a Prototype Fast Breeder Reactor which is under construction, a few more projects are going to be located here in near future.

The campus encompasses vast plain area of the Bay of Bengal, which is found to be a biologically diverse habitat for native flora & fauna and aesthetically blended with introduced vegetation. The main types of vegetation are tropical dry-evergreen (Ramanujam and Kadamban, 2008) and scrub. The first 10 plant families in the order of dominance are Poaceae, Fabaceae, Cyperaceae, Asteraceae, Euphorbiaceae, Verbenaceae, Solanaceae, Rubiaceae, Convolvulaceae and Amaranthaceae respectively (Gajendiran and Ragupathy, 2002). Even though, some preliminary observations on bird life at Kalpakkam and it's environ were available (Arasu, 1982; Tabish, 1998; Rajaram, 1999; Siddiqui, 2004), there is no scientific information available on avifauna of the campus.

To fulfill the lacuna, the present study not only focused on preparing the checklist of birds, but also to find out their abundance and migratory status as well as to create awareness among employees of DAE campus and local people for their conservation. In addition, the study aims to provide baseline data for future impact assessment. The systematic surveys were conducted during March 2007 to December 2010. Standard field guides were used for identification of the species (Ali, 2000; Kazmierczak, 2000) and the recent nomenclature was adapted as per Manakadan and Pittie (2001).

During the survey period, a total of 178 species of birds have been recorded (Table-1). Three water bodies viz., WIP marsh, Kunnathur marsh and KKM Lake add ecological diversity to



Little grebe

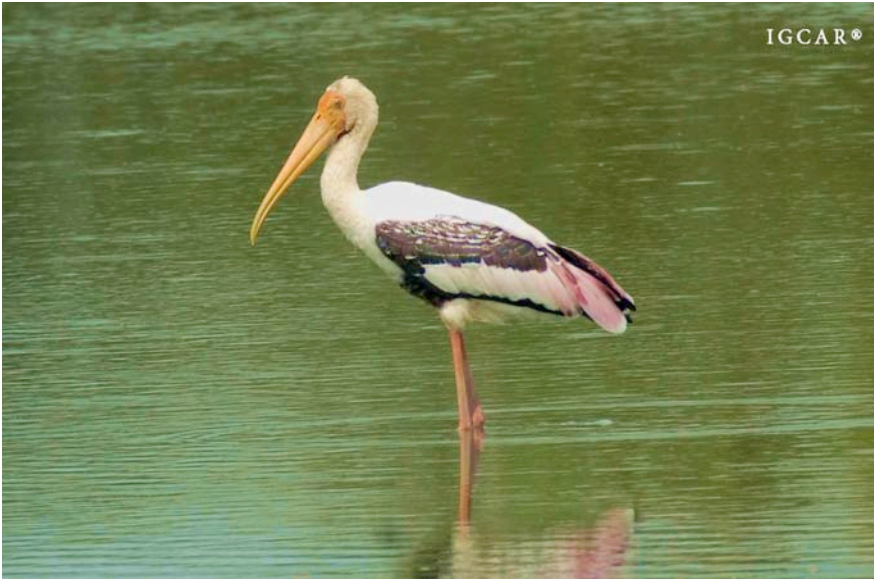


Spot billed pelican at WIP marsh



Black crowned night heron

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**Painted stork**



**Black bittern**



**Eurasian spoonbill**

the site and thus attract large number of migrant birds (Jahir Hussain et al., 2007; 2008; 2010). Among 178 species 74 were wetlands birds. Species such as Purple Moorhen, Common Moorhen, Spot-billed Duck, Little Grebe, Indian Pond-Heron, Black-crowned Night-Heron, Lesser Pied Kingfisher, Small Blue Kingfisher, White Breasted Kingfisher, Purple Heron, Small, Median and Large Egret were found residential. However, bird species such as Darter, Garganey, Northern Shoveller, Eurasian Wigeon, Northern Pintail, Common Teal, Black-tailed Godwit were regular migrants to these water bodies during winter. Most of the birds were vagrants found occasionally on wetlands. Small Bee-eater, White-headed Babbler, Black Drongo, Purple Sunbird, Loten's Sunbird, Greater Coucal, Asian Koel, Common Myna, Indian Treepie, House Crow, Jungle Crow, Rose-ringed Parakeet, Spotted Dove, Red-vented Bulbul and Coppersmith Barbet were common woodland birds in the campus. Rosy Starling, Forest Wagtail, Common Swallow and Brown Shrike were regular winter visitors.

Even though 16 species of predatory birds were recorded, Shikra and Black-shoulder Kite were most important birds of prey. In addition, Spotted Owlet is a predominant hunter of rodents and other small creatures of the campus. A large stick nest of White-bellied Sea Eagle was found on high power line tower, which was used for many seasons in succession. Booted Eagle, Crested Serpent-Eagle, Oriental Honey-Buzzard and other birds of prey were extralimital and mostly seen flying over. Kentish Plover, Bridled tern, Caspian Tern, Pallas Gull, Syke's Warbler, Oriental Turtle-Dove, Glossy Ibis, Brown-breasted Flycatcher, and Indian Pitta were noteworthy, and observed only once. Even though the diversity is high, the distribution of birds species in the campus is patchy. Water bodies and scrub jungle are preferred habitats for most of the recorded birds.

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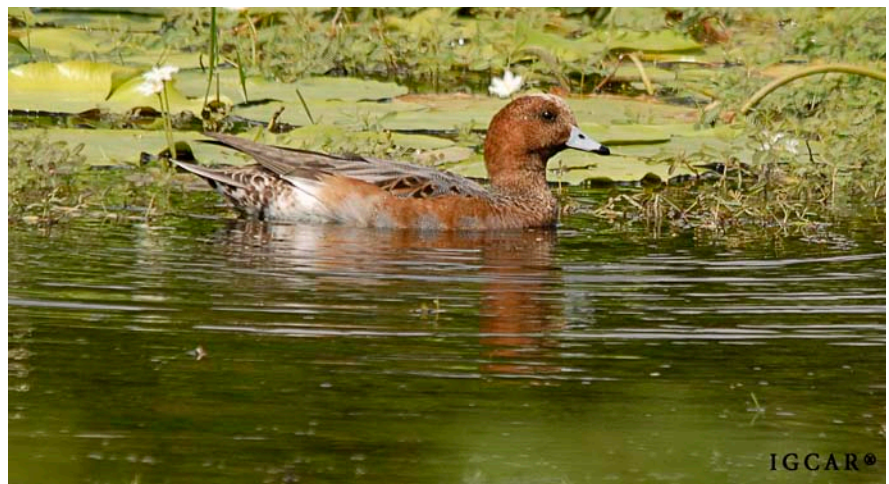
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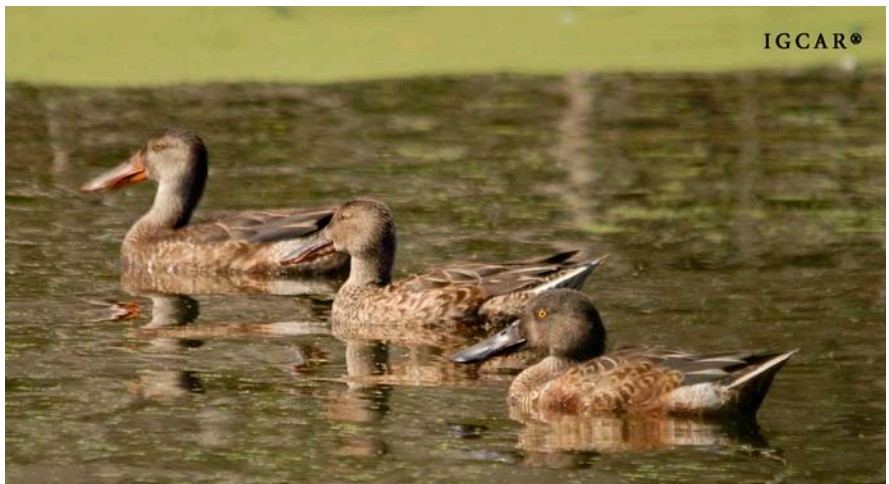
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**Lesser Whistling-Duck**



**Eurasian Wigeon**



**Northern Shoveler 2 female and a male**



**Black shoulder Kite**

**Table 1- Checklist of birds of DAE campus, Kalpakkam**

S.No.	Family	Scientific name#	Common name#	Abundance	Status
	<b>Podicipedidae</b>	<i>Tachybaptus ruficollis</i>	Little Grebe	C	RLM
	<b>Pelecanidae</b>	<i>Pelecanus philippensis</i>	Spot-billed Pelican	FC	RLM
	<b>Phalacrocoracidae</b>	<i>Phalacrocorax niger</i>	Little Cormorant	FC	RLM
		<i>Phalacrocorax fuscicollis</i>	Indian Shag	I	MV
		<i>Phalacrocorax carbo</i>	Great Cormorant	FC	RLM
	<b>Anhingidae</b>	<i>Anhinga melanogaster</i>	Darter	FC	N
	<b>Ardeidae</b>	<i>Egretta garzetta</i>	Little Egret	FC	RTY
		<i>Ardea cinerea</i>	Grey Heron	UC	RLM
		<i>Ardea purpurea</i>	Purple Heron	UC	RLM
		<i>Casmerodius albus</i>	Large Egret	UC	RLM
		<i>Mesophoyx intermedia</i>	Median Egret	UC	RLM
		<i>Bubulcus ibis</i>	Cattle Egret	C	RLM
		<i>Ardeola grayii</i>	Indian Pond-Heron	C	RTY
		<i>Butorides striatus</i>	Little Green Heron	R	V
		<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron	C	RTY
		<i>Ixobrychus sinensis</i>	Yellow Bittern	UC	MV
		<i>Ixobrychus cinnamomeus</i>	Chestnut Bittern	I	V
		<i>Dupetor flavicollis</i>	Black Bittern	R	RLM
	<b>Ciconiidae</b>	<i>Mycteria leucocephala</i>	Painted Stork	FC	RLM
		<i>Anastomus oscitans</i>	Asian Openbill-Stork	C	RLM
	<b>Threskiornithidae</b>	<i>Plegadis falcinellus</i>	Glossy Ibis	R	V
		<i>Threskiornis melanocephalus</i>	Oriental White Ibis	UC	RLM
		<i>Platalea leucorodia</i>	Eurasian Spoonbill	R	N
	<b>Phoenicopteridae</b>	<i>Phoenicopeterus ruber</i>	Greater Flamingo	I	V
	<b>Anatidae</b>	<i>Dendrocygna javanica</i>	Lesser Whistling-Duck	UC	MV
		<i>Anas penelope</i>	Eurasian Wigeon	UC	WV
		<i>Anas poecilorhyncha</i>	Spot-billed Duck	C	RTY
		<i>Anas clypeata</i>	Northern Shoveller	UC	WV
		<i>Anas acuta</i>	Northern Pintail	UC	WV
		<i>Anas querquedula</i>	Garganey	UC	WV
		<i>Anas crecca</i>	Common Teal	UC	WV
	<b>Accipitridae</b>	<i>Pernis ptilorhynchus</i>	Oriental Honey-Buzzard	R	V
		<i>Elanus caeruleus</i>	Black-shouldered Kite	UC	RTY
		<i>Milvus migrans</i>	Black Kite	C	RTY
		<i>Haliastur indus</i>	Brahminy Kite	UC	RLM
		<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	R	RLM
		<i>Spilornis cheela</i>	Crested Serpent-Eagle	R	V
		<i>Accipiter badius</i>	Shikra	FC	RTY
		<i>Hieraaetus pennatus</i>	Booted Eagle	R	WV
		<i>Buteo buteo</i>	Common Buzzard	I	V
		<i>Butastur teesa</i>	White-eyed Buzzard	I	V
		<i>Circus macrourus</i>	Pallid Harrier	I	V
	<b>Pandionidae</b>	<i>Pandion haliaetus</i>	Osprey	I	V
	<b>Falconidae</b>	<i>Falco tinnunculus</i>	Common Kestrel	R	V
	<b>Phasianidae</b>	<i>Francolinus pondicerianus</i>	Grey Francolin	C	RTY
		<i>Pavo cristatus</i>	Indian Peafowl	R	V
	<b>Turnicidae</b>	<i>Turnix suscitator</i>	Common Buttonquail	I	V
	<b>Rallidae</b>	<i>Gallirallus striatus</i>	Blue-breasted Rail	R	V
		<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	UC	N
		<i>Porphyrio porphyrio</i>	Purple Moorhen	C	RTY
		<i>Gallinula chloropus</i>	Common Moorhen	FC	RLM
		<i>Fulica atra</i>	Common Coot	UC	RLM
	<b>Jacanidae</b>	<i>Hydrophasianus chirurgus</i>	Pheasant-tailed Jacana	UC	N
	<b>Rostratulidae</b>	<i>Rostratula benghalensis</i>	Greater Painted-Snipe	I	N
	<b>Charadriidae</b>	<i>Pluvialis fulva</i>	Pacific Golden-Plover	R	N
		<i>Charadrius dubius</i>	Little Ringed Plover	UC	RLM
		<i>Charadrius alexandrinus</i>	Kentish Plover	I	V
		<i>Pluvialis squatarola</i>	Grey Plover	I	V
		<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing	I	N
		<i>Vanellus indicus</i>	Red-wattled Lapwing	C	RTY
	<b>Scolopacidae</b>	<i>Gallinago stenura</i>	Pintail Snipe	R	N
		<i>Gallinago gallinago</i>	Common Snipe	I	N



**White-bellied Sea-Eagle**



**Eurasian curlew**



**Pheasant-tailed Jacana - non breeding**



**Black-winged Stilt**



**Pacific Golden-Plover**



**Great Stone-Plover**



**Black-tailed Godwit**



**Bridled Tern**

S.No.	Family	Scientific name#	Common name#	Abundance	Status
		<i>Limosa limosa</i>	Black-tailed Godwit	R	WV
		<i>Numenius arquata</i>	Eastern Curlew	UC	WV
		<i>Tringa totanus</i>	Common Redshank	R	MV
		<i>Tringa stagnatilis</i>	Marsh Sandpiper	R	WV
		<i>Tringa nebularia</i>	Common Greenshank	I	WV
		<i>Tringa ochropus</i>	Green Sandpiper	I	WV
		<i>Tringa glareola</i>	Wood Sandpiper	FC	RLM
		<i>Actitis hypoleucos</i>	Common Sandpiper	UC	MV
		<i>Calidris minuta</i>	Little Stint	I	N
	<b>Recurvirostridae</b>	<i>Himantopus himantopus</i>	Black-winged Stilt	FC	RLM
	<b>Burhinidae</b>	<i>Burhinus oedicnemus</i>	Stone Curlew	R	RTY
		<i>Esacus recurvirostris</i>	Great Stone-Plover	I	RLM
	<b>Glareolidae</b>	<i>Glareola maldivarum</i>	Oriental Pratincole	I	V
	<b>Laridae</b>	<i>Larus ichthyæetus</i>	Pallas's Gull	I	N
		<i>Larus brunnicephalus</i>	Brown-headed Gull	UC	N
		<i>Larus ridibundus</i>	Black-headed Gull	I	V
		<i>Gelochelidon nilotica</i>	Gull-billed Tern	UC	WV
		<i>Sterna caspia</i>	Caspian Tern	I	V
		<i>Sterna aurantia</i>	River Tern	I	N
		<i>Sterna hirundo</i>	Common Tern	R	WV
		<i>Sterna anaethetus</i>	Bridled Tern	I	WV
		<i>Sterna albifrons</i>	Little Tern	I	V
		<i>Chlidonias hybridus</i>	Whiskered Tern	I	V
	<b>Columbidae</b>	<i>Columba livia</i>	Blue Rock Pigeon	FC	RTY
		<i>Streptopelia orientalis</i>	Oriental Turtle-Dove	R	N
		<i>Streptopelia senegalensis</i>	Little Brown Dove	I	V
		<i>Streptopelia chinensis</i>	Spotted Dove	FC	RTY
		<i>Streptopelia decaocto</i>	Eurasian Collared-Dove	R	N
	<b>Psittacidae</b>	<i>Psittacula krameri</i>	Rose-ringed Parakeet	C	RTY
		<i>Psittacula cyanocephala</i>	Plum-headed Parakeet	I	V
	<b>Cuculidae</b>	<i>Clamator jacobinus</i>	Pied Crested Cuckoo	UC	RLM
		<i>Clamator coromandus</i>	Red-winged Crested Cuckoo	R	V
		<i>Hierococcyx varius</i>	Brainfever Bird	I	RLM
		<i>Cacomantis passerinus</i>	Indian Plaintive Cuckoo	R	N
		<i>Eudynamys scolopacea</i>	Asian Koel	C	RTY
		<i>Phaenicophaeus viridirostris</i>	Small Green-billed Malkoha	UC	N
		<i>Phaenicophaeus leschenaultii</i>	Sirkeer Malkoha	I	V
		<i>Centropus sinensis</i>	Greater Coucal	FC	RTY
	<b>Tytonidae</b>	<i>Tyto alba</i>	Barn Owl	I	V
	<b>Strigidae</b>	<i>Athene brama</i>	Spotted Owlet	FC	RTY
		<i>Ninox scutulata</i>	Brown Hawk-Owl	I	V
		<i>Otus bakkamoena</i>	Collared Scops-Owl	I	N
		<i>Bubo benghalensis*</i>	Indian Eagle-Owl*	I	V
	<b>Caprimulgidae</b>	<i>Caprimulgus indicus</i>	Indian Jungle Nightjar	I	N
	<b>Apodidae</b>	<i>Cypsiurus balasiensis</i>	Asian Palm-Swift	FC	RTY
		<i>Apus affinis</i>	House Swift	UC	RLM
		<i>Tachymarptis melba</i>	Alpine Swift	I	N
	<b>Alcedinidae</b>	<i>Alcedo atthis</i>	Small Blue Kingfisher	FC	RTY
		<i>Halcyon smyrnensis</i>	White-breasted Kingfisher	FC	RTY
		<i>Ceryle rudis</i>	Lesser Pied Kingfisher	FC	RTY
	<b>Meropidae</b>	<i>Merops orientalis</i>	Small Bee-eater	C	RTY
		<i>Merops philippinus</i>	Blue-tailed Bee-eater	FC	WV
	<b>Coraciidae</b>	<i>Coracias benghalensis</i>	Indian Roller	UC	RLM
	<b>Upupidae</b>	<i>Upupa epops</i>	Common Hoopoe	UC	RLM
	<b>Capitonidae</b>	<i>Megalaima haemacephala</i>	Coppersmith Barbet	C	RTY
	<b>Picidae</b>	<i>Dinopium benghalense</i>	Lesser Golden Backed Woodpecker	UC	RTY
	<b>Pittidae</b>	<i>Pitta brachyura</i>	Indian Pitta	I	V
	<b>Alaudidae</b>	<i>Mirafra affinis</i>	Jerdon's Bush-Lark	I	V
		<i>Alauda gulgula</i>	Eastern Skylark	I	N
		<i>Eremopterix grisea</i>	Ashy-crowned Sparrow-Lark	I	V
	<b>Hirundinidae</b>	<i>Hirundo rustica</i>	Common Swallow	UC	N
		<i>Hirundo daurica</i>	Red-rumped Swallow	UC	RLM
		<i>Hirundo fluvicola</i>	Streak-throated Swallow	UC	N



**Oriental Turtle-Dove**



**Yellow wagtail best- sub species Melanogrisea**



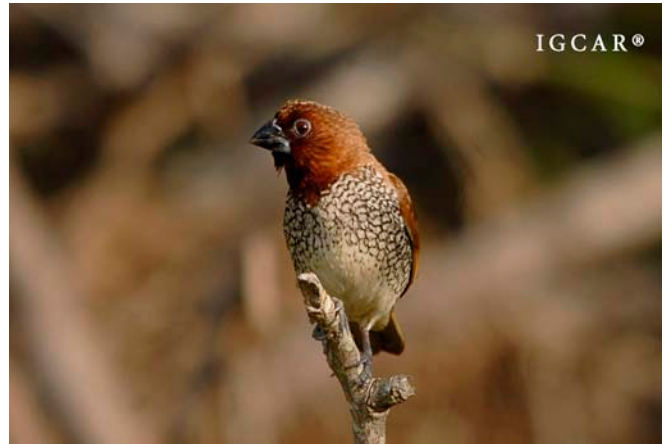
**Eurasian Collared-Dove**



**Asian Paradise-Flycatcher**



**Ashy-crowned Sparrow-Lark**



**Spotted munia**



**Forest Wagtail**



**Loten's Sunbird**

S.No.	Family	Scientific name#	Common name#	Abundance	Status
	<b>Motacillidae</b>	<i>Dentronanthus indicus</i>	Forest Wagtail	UC	WV
		<i>Motacilla maderaspatensis</i>	Large Pied Wagtail	FC	RLM
		<i>Motacilla flava</i>	Yellow Wagtail	I	WV
		<i>Motacilla cinerea</i>	Grey Wagtail	I	WV
	<b>Campephagidae</b>	<i>Anthus rufulus</i>	Paddyfield Pipit	FC	RTY
		<i>Coracina melanoptera</i>	Black-headed Cuckoo-Shrike	R	WV
		<i>Pericrocotus cinnamomeus</i>	Small Minivet	I	V
	<b>Pycnonotidae</b>	<i>Tephrodornis pondicerianus</i>	Common Woodshrike	I	N
		<i>Pycnonotus cafer</i>	Red-vented Bulbul	C	RTY
		<i>Pycnonotus luteolus</i>	White-browed Bulbul	FC	RTY
	<b>Irenidae</b>	<i>Aegithina tiphia</i>	Common Iora	R	N
	<b>Laniidae</b>	<i>Lanius vittatus</i>	Bay-backed Shrike	I	V
		<i>Lanius cristatus</i>	Brown Shrike	FC	WV
		<i>Lanius schach</i>	Rufous-backed Shrike	I	V
		<i>Lanius meridionalis</i>	Southern Grey Shrike	I	V
	<b>Muscicapidae</b>	<i>Copsychus saularis</i>	Oriental Magpie-Robin	FC	RLM
		<i>Saxicoloides fulicata</i>	Indian Robin	FC	RTY
		<i>Saxicola caprata</i>	Pied Bushchat	UC	N
		<i>Turdoides affinis</i>	White-headed Babbler	C	RTY
		<i>Prinia socialis</i>	Ashy Prinia	UC	RLM
		<i>Prinia inornata</i>	Plain Prinia	FC	RTY
		<i>Acrocephalus dumetorum</i>	Blyth's Reed-Warbler	R	WV
		<i>Hippolais caligata</i>	Booted Warbler	R	WV
		<i>Iduna rama*</i>	Syke's Warbler*	I	V
		<i>Phylloscopus trochiloides</i>	Greenish Leaf-Warbler	I	V
		<i>Cisticola juncidis</i>	Streaked Fantail Warbler	I	V
		<i>Orthotomus sutorius</i>	Common Tailorbird	R	RLM
		<i>Muscicapa dauurica</i>	Asian Brown Flycatcher	R	RLM
		<i>Muscicapa muttui</i>	Brown-breasted Flycatcher	R	N
		<i>Terpsiphone paradisi</i>	Asian Paradise-Flycatcher	R	N
	<b>Nectariniidae</b>	<i>Nectarinia asiatica</i>	Purple Sunbird	UC	RTY
		<i>Nectarinia zeylanica</i>	Purple-rumped Sunbird	FC	RLM
		<i>Nectarinia lotenia</i>	Loten's Sunbird	FC	RTY
	<b>Estrildidae</b>	<i>Lonchura malabarica</i>	White-throated Munia	UC	RLM
		<i>Lonchura striata</i>	White-rumped Munia	I	V
		<i>Lonchura punctulata</i>	Spotted Munia	FC	RLM
		<i>Lonchura malacca</i>	Black-headed Munia	UC	RLM
	<b>Passeridae</b>	<i>Passer domesticus</i>	House Sparrows	R	RTY
		<i>Petronia xanthocollis</i>	Yellow-throated Sparrow	UC	RLM
		<i>Ploceus manyar</i>	Streaked Weaver	FC	RLM
		<i>Ploceus philippinus</i>	Baya Weaver	FC	RLM
	<b>Sturnidae</b>	<i>Sturnus malabaricus</i>	Grey-headed Starling	R	WV
		<i>Sturnus pagodarum</i>	Brahminy Starling	FC	RLM
		<i>Sturnus roseus</i>	Rosy Starling	UC	WV
		<i>Acridotheres tristis</i>	Common Myna	C	RTY
	<b>Oriolidae</b>	<i>Oriolus oriolus</i>	Eurasian Golden Oriole	UC	RLM
	<b>Dicruridae</b>	<i>Dicrurus macrocercus</i>	Black Drongo	FC	RTY
		<i>Dicrurus leucophaeus</i>	Ashy Drongo	I	N
		<i>Dicrurus caerulescens</i>	White-bellied Drongo	I	N
	<b>Artamidae</b>	<i>Artamus fuscus</i>	Ashy Woodswallow	FC	RTY
	<b>Corvidae</b>	<i>Dendrocitta vagabunda</i>	Indian Treepie	FC	RTY
		<i>Corvus splendens</i>	House Crow	C	RTY
		<i>Corvus macrorhynchos</i>	Jungle Crow	C	RTY

#As per Manakadan and Pittie \* IOC World Bird Names (Gill & Donsker)

RTY-Resident throughout the year; RLM-Resident with local movements; WV-Winter visitor; MV- Monsoon visitor; N-Nomadic visitor with no apparent seasonality; V-Vagrant (Only a single or a couple of records); C - Common; FC - Fairly common; UC - Uncommon; R - Rare; I - Irregular