



Animal Diversity Registration of Korean EPZ (KEPZ): An Environmentally Responsible Private Initiative

**A Report
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Biodiversity Registration of Korean EPZ: An Environmentally Responsible Private Initiative

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Executive summary

Korean Export Processing Zone (KEPZ) is an initiative of Youngone Corporation, a company based in South Korea. KEPZ initiative included re-greening of the barren land and rehabilitating the natural environment of the area as part of developing it as an eco-friendly export processing zone. In the past, about two decades KEPZ has created several large marshlands and undertaken tree plantation on a large scale to turn more than half the land into fenland and woods. Casual observations asserted the remarkable speed of recolonization of those newly created marshes and greeneries by wildlife long lost from that area. A study on the faunal diversity and the ecology of the KEPZ was undertaken to evaluate the success of re-greening of the area and rehabilitation of the wildlife. The study listed nearly 86 species of butterflies, 20 species of dragonflies and damselflies, 7 species of amphibians, 9 species of reptiles, 159 species of birds, and 11 species of mammals. The 121 species of birds sighted during the two short field visits are given at Table-1. It is evidently not a comprehensive list of the birds of KEPZ since many very common birds of Bangladesh are missing in that list. The list of birds living round the year at KEPZ or using it seasonally will be considerably larger than Table-1. A list of 38 species of common birds not sighted during the field visits are given at Table-2. These 38 species are not site-specific and seen in all woodlands, orchards and village groves of Bangladesh. These birds are guaranteed to be sighted at the KEPZ if more field visits are undertaken. The number of species of birds of KEPZ will, therefore, be no less than 159. This number will be higher with the inclusion of a few gulls, terns and shorebirds if the survey area is extended up to the river-front of KEPZ. The lesson learned from the KEPZ initiative has relevance to the re-greening, re-wilding, and wildlife rehabilitation efforts elsewhere in Bangladesh.



The survey team is observing birds on a chilly morning at KEPZ

Introduction

Youngone Corporation is an environmentally responsible world-class private initiative. The company started a green zone called Korean Export Processing Zone (KEPZ) on the south bank of the Karnaphuli River in Chattogram (formerly Chittagong), Bangladesh, in 1999. Today the large part of the 2,500 acres of barren land turned into a sanctuary for many threatened species of this country. Mr. Kihak Sung, Chairman and CEO of Youngone, has the vision to produce goods and develop infrastructure without causing harm to the environment. He designed a green concept as a strategy and policy pursued by Youngone. By now Youngone planted more than 2.5 million trees and created 25 reservoirs, which are home to a large number of invertebrates, amphibians, reptiles, birds, and mammals.

United Nations Environment Programme (UNEP) defines green industry as “a pathway of sustainable growth by undertaking green public investments and implementing public policy initiatives that encourage environmentally responsible private investments”. In line with UNEP’s guidelines, KEPZ has already created its own version of green industries, which made home to a large number of wildlife. Based on Youngone Corporation’s commitment to a healthy planet and making the workplaces environment-friendly, WildTeam hereby showed interest to do a survey within the KEPZ area to make an inventory of butterflies, dragonflies, damselflies, amphibians, reptiles, birds, and mammals, and gather information on their habitat, ecology, and threats. A highly experienced team with different skill sets such as bird specialist, wildlife biologist, camera trap survey expert, and data analyst worked on this project.

The survey results will support KEPZ develop a conservation plan to protect its biodiversity and minimize threats.



A green belt of the KEPZ industrial zone

Survey period

The duration of the project was from December 2020 to January 2022. Within this period two surveys were conducted. The first survey was carried out from December 3-30, 2020, and the second survey was done from December 15, 2021, to January 09, 2022.

Study area

The survey was done in the Korean Export Processing Zone located in Anowara upazila of Chattogram district of Bangladesh.



Map of KEPZ

Survey methods

As the study area is covered with various types of habitats such as grassland, forest, plain land, hill tracts, and waterbody, it was divided into sections, for each habitat. The entire area was divided into four blocks named H, I, J, K. Each block was further divided into sub-blocks to collect the data appropriately. Both direct and indirect observation methods were followed for this survey. For the direct method (counting the animals), transect and block survey techniques were followed. For the indirect method, counting signs or signals such as dung, tracks, pug marks, and calls were recorded.

For mammals, camera traps were set to capture the images of animals. The survey team recorded bird species by direct observation and hearing the calls while walking along the transects within the blocks. Butterflies and damselflies were recorded by direct observation. Frogs and toads go hibernation in winter, however, the survey team was able to record only a few species of them.



During the first survey, the KEPZ area was divided into 30 grids for monitoring. Each grid was 0.25 sq km. The total grid area was 7.5 sq km.



The three techniques of the survey (Direct sighting • Sign survey • Camera trap survey)

Direct sighting

All the animals sighted were listed by the grids.



Direct sighting of animals.

Sign survey

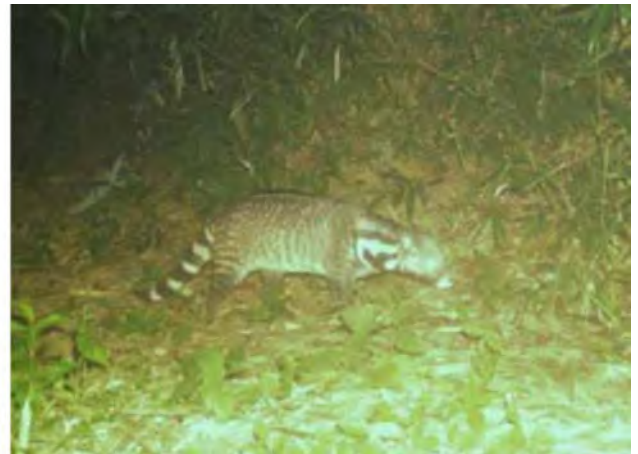
Sign surveys were useful to identify the nocturnal animals.



Animal footprints in KEPZ. (Jackal and Fishing cat footprint)

Camera trapping

Camera traps are a useful tool for collecting information on vertebrate species, especially nocturnal animals.



Modern technology (e.g., camera traps) was used in the survey. (Left: Setting a camera trap. Right: A camera-trapped image)

Survey equipment

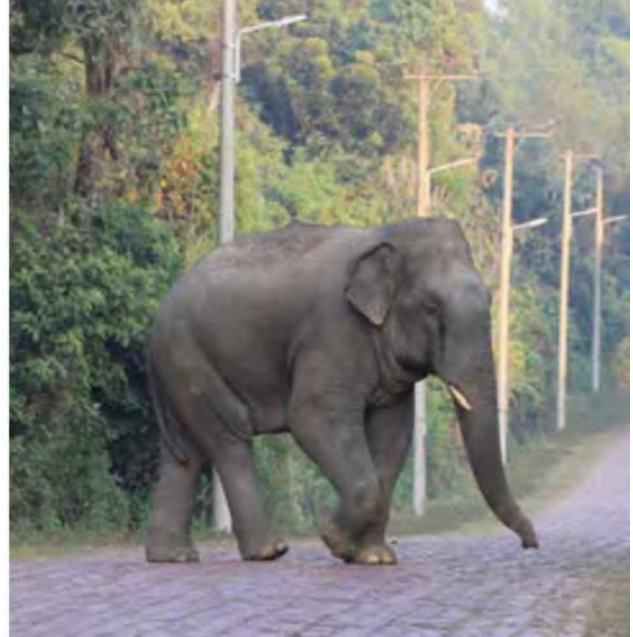
- 5 units of GPS
- 5 DSLR cameras
- 5 pairs of binoculars
- 10 camera traps
- Field data collection form and data storage form



Golden Jackal

Results

The study reveals that the Korean EPZ has 292 species of fauna: 11 species of mammals including 3 non-resident wild elephants (two adults and one calf), 159 species of birds, 9 species of reptiles, 7 species of amphibians, 86 species of butterflies, and 20 species of dragonflies and damselflies .



An Asian Elephant is crossing the road

Asian Elephants are Critically Endangered in Bangladesh for various reasons. Bangladesh Forest Department attributes electrocution, aging, slipping, and falling from hills to most elephant deaths in Bangladesh. They have been visiting KEPZ since 2011. Unfortunately, conflicts with elephants have been observed in the past three years here. A few people were killed and KEPZ property was damaged by elephants. This conflict is on the rise and proper actions should be taken to mitigate this conflict. Conflicts with other animals are also observed here.



By Elephant



Consequences of human-wildlife conflict in KEPZ

By Porcupine

Suggestions to mitigate human-elephant conflict issues in KEPZ:

- Feeding, foraging, and territorial behaviour of elephants be studied;
- Elephant movement patterns and corridors be studied;
- The daily activity/movement pattern be plotted on a map of KEPZ and its neighbouring areas:
- Source population of these elephants should be identified;
- Land-use planning is necessary, which guides and helps prepare an action plan on human-elephant conflict issues;
- Discourage planting plants that attract elephants. For example, coconut trees. Orchard gardens including jackfruits, paddy, and a few vegetables are also the attractants of the elephants;
- Capacity building: an employee along with his/her regular activities, could monitor biodiversity including human-elephant conflict issues;
- Elephant Response Team (ERT), comprising existing security guards be formed, and trained;
- Awareness-raising activities: KEPZ employees/workers should be made aware of the DOs and DON'Ts when the elephants are around;
- A manual on human-elephant conflict mitigation measures could be prepared and distributed;
- Solar electric fencing may be installed at entry points (Forest Department should be consulted on this);
- An alarm system by developing an app be in place;
- A hotline to inform the presence/movement of elephants be in place;
- CCTV cameras be installed at strategic locations;
- Watch towers be in place at strategic locations;
- Searchlights be installed at strategic locations;
- Trenches could be dug at different locations to discourage elephant movement (FD should be consulted on this)
- Translocation of elephants: this needs the involvement of FD; and
- Radio-collaring of the immobilized elephants to monitor their movement.

Conclusion

While the current trend is destroying nature and building concrete infrastructure Korean Export Processing Zone (KEPZ) is creating a safe haven for the country's outstanding but declining biodiversity. The biodiversity survey at the KEPZ was conducted by WildTeam with a goal to accomplish Youngone Corporation's commitment to restoring and conserving the natural environment and creating a healthy working environment for KEPZ's employees. The study reveals that a total of 292 species of fauna occur in the Korean EPZ including mammals, birds, reptiles, amphibians, and insects. The study also recorded human-wildlife conflict information that took place at KEPZ. Conflicts with elephants are quite severe there and it took a toll on human lives and KEPZ property. Studying the behaviour and movement patterns of the elephants; not planting trees or growing crops that attract elephants; educating the KEPZ community on the importance of elements and the management of conflict situations are among the proposed measures to mitigate human-elephant conflict. Furthermore, to intensify its nature conservation efforts KEPZ should develop a long-term action plan to monitor and study the biodiversity; identify and mitigate threats; educating the local community on the importance of biodiversity and its role to protect them. A dedicated biodiversity team should be developed from the staff of the KEPZ to carry out conservation activities within and around this unique area. The KEPZ is an excellent example of green space in a commercial city like Chattogram and this re-wilding model should be followed by others.

Acknowledgements

We owe so much to Mr Kihak Sung, Chairman and CEO, Youngone Corporation and Korean EPZ (KEPZ) Corporation (BD) Ltd, for encouraging us to register the faunal diversity of the Korean EPZ. We must sincerely thank Col (retd) Md. Shahjahan, MD, KEPZ, Mr Md. Ferdous Al Kowser, Deputy General Manager, Chairman's Office, KEPZ, Mr Mushfiqur Rahman, Assistant General Manager, KEPZ, Mr AKM Ashraf Hasan Eusuf, Assistant Manager, Agro-Environment Department, KEPZ, for providing all the facilities during the survey. We greatly appreciate the assistance of Mr Jafor Ahmed, Supervisor, Agro-Environment Department, KEPZ, and Mr Faruk, driver, KEPZ, during the field study. Both of them not only took us to all the places at KEPZ, but also helped us experience human-elephant conflict at KEPZ, once after the midnight. Thanks are due to Mr Omar Shahadat, Member, Bangladesh Bird Club, for checking all the bird names.

Faunal species recorded during the survey (Mammals)

Sl. No.	Species Name	Common Name	Local Name
1	<i>Canis aureus</i>	Golden Jackal	Pati Shial, Shial
2	<i>Viverra zibetha</i>	Large Indian Civet	Baghdash, Bham or BhamBiral, Gandho Gokul or Khatash
3	<i>Viverricula indica</i>	Small Indian Civet	Khatash, GandhoGakul, ChotoBagdash, Bham, Newl, Kolkat
4	<i>Elephas maximus</i>	Asian Elephant	Hati, Hasti, Gaja
5	<i>Hystrix indica</i>	Indian Crested Porcupine	Shojaru, Haza
6	<i>Felis chaus</i>	Jungle Cat	Ban Biral, Wab, Bon Bilai, Gara
7	<i>Prionailurus viverrinus</i>	Fishing Cat	MechhoBiral, Mechho Bagh
8	<i>Pteropus giganteus</i>	Indian Flying Fox	Kolabadur, TamateyKolabadur
9	<i>Suncus murinus</i>	Asian House Shrew	Chika, Chucho, Sucha
10	<i>Herpestes auropunctatus</i>	Indian Small Mongoose	Chhoto Beji, Nakul
11	<i>Bandicota indica</i>	Greater Bandicoot Rat	DharilIndur, BoroIndur, BoroDhereldur



Mammals observed in KEPZ

Table 1. Birds sighted

SL.No.	Species Name	Common Name	Local name
1	<i>Dendrocygna javanica</i>	Lesser Whistling Duck	Pati Shorali
2	<i>Dinopium benghalense</i>	Black-rumped Flameback	Bangla Kaththokra
3	<i>Picus xanthopygaeus</i>	Streak-throated Woodpecker	Dagigola Kathkurali
4	<i>Dendrocopos macei</i>	Fulvous-breasted Woodpecker	Batabi Kathkurali
5	<i>Chrysocolaptes guttacristatus</i>	Greater Flameback	Boro Kaththokra
6	<i>Psilopogon haemacephalus</i>	Coppersmith Barbet	Shekra Boshonto, Choto Basanta Bauri
7	<i>Psilopogon lineatus</i>	Lineated Barbet	Dagi Boshonto
8	<i>Upupa epops</i>	Common Hoopoe	Pati Hoodhood
9	<i>Coracias affinis</i>	Indochinese Roller	Chin-indian Neelkantho
10	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	Dholagola Machranga
11	<i>Alcedo atthis</i>	Common Kingfisher	Pati Machranga, Choto Machranga
12	<i>Pelargopsis capensis</i>	Stork-billed Kingfisher	Meghou Machranga
13	<i>Ceryle rudis</i>	Pied Kingfisher	Pakra Machranga
14	<i>Merops orientalis</i>	Asian Green Bee-eater	Sobuj Shuichora
15	<i>Merops leschenaulti</i>	Chestnut Headed Bee-eater	Khoiramatha Shuichora
16	<i>Eudynamis scolopaceus</i>	Western Koel	Kala Kokil
17	<i>Centropus bengalensis</i>	Lesser Coucal	Bangla Kubo
18	<i>Centropus sinensis</i>	Greater Coucal	Boro Kubo
19	<i>Cacomantis merulinus</i>	Plaintive Cuckoo	Koroon Papia
20	<i>Hierococcyx varius</i>	Common Hawk Cuckoo	Pati Chokhgelo
21	<i>Psittacula krameri</i>	Rose-ringed Parakeet	Shobuj Tia
22	<i>Apus nipalensis</i>	House Swift	Ghor Batashi
23	<i>Cypsiurus balasiensis</i>	Asian Palm-swift	Ashio Talbatashi, Talbatashi, Nakkati
24	<i>Athene brama</i>	Spotted Owlet	Khurule Pecha
25	<i>Ninox scululata</i>	Brown Boobook	Khoira Shikrepecha
26	<i>Caprimulgus macrurus</i>	Large-tailed Nightjar	Lenja Ratchora
27	<i>Columba livia</i>	Rock Dove	Gola Paira, Gola Payra, Jalali Kobutor
28	<i>Spilopelia chinensis</i>	Eastern Spotted Dove	Tila Ghughu, Telia Ghughu

SL.No.	Species Name	Common Name	Local name
29	<i>Streptopelia decaocto</i>	Eurasian Collared-dove	Euresio Konthighughu
30	<i>Treron phoenicopterus</i>	Yellow-footed Green Pigeon	Holdeypa Harial, Botkol
31	<i>Chalcophaps indica</i>	Grey-capped Emerald Dove	Pati Shamaghughu
32	<i>Streptopelia tranquebarica</i>	Red Turtle Dove	Lal Rajghughu, Lal Ghughu
33	<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	Dahuk, Dholagola Dahuk
34	<i>Actitis hypoleucos</i>	Common Sandpiper	Pati Batan
35	<i>Gallinago gallinago</i>	Common Snipe	Pati Chega
36	<i>Tringa ochropus</i>	Green Sandpiper	Shobuj Batan
37	<i>Rostratula benghalensis</i>	Greater Painted Snipe	Bangla Rangachega
38	<i>Metopidius indicus</i>	Bronze-winged Jacana	Jol Pipi, Dol Pipi
39	<i>Hydrophasianus chirurgus</i>	Pheasant-tailed Jacana	Neu pipi, Jal Mayur
40	<i>Vanellus indicus</i>	Red-wattled Lapwing	Hot Titi
41	<i>Vanellus cinereus</i>	Grey-headed Lapwing	Meteymatha Titi
42	<i>Milvus migrans</i>	Black Kite	Bhubon Chil
43	<i>Haliastur indus</i>	Brahminy Kite	Shonkho Chil
44	<i>Accipiter badius</i>	Shikra	Pati Shikre
45	<i>Aviceda jerdoni</i>	Jerdon's Baza	Jardoner Baj
46	<i>Ichthyophaga ichhyaetus</i>	Grey-headed Fish Eagle	Meteymatha Kura-eagle
47	<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	Udoyee Modhubaj
48	<i>Clanga hastata</i>	Indian Spotted Eagle	Deshi Guti-eagle
49	<i>Spilornis cheela</i>	Crested Serpent-eagle	Tila-nag eagle
50	<i>Hieraaetus pennatus</i>	Booted Eagle	Bootpa Eagle
51	<i>Falco tinnunculus</i>	Common Kestrel	Pati Kestrel
52	<i>Falco peregrinus</i>	Peregrine Falcon	Boheribaj, Peregrin Shaheen
53	<i>Tachybaptus ruficollis</i>	Little Grebe	Choto Duburi
54	<i>Anhinga melanogaster</i>	Oriental Darter	Goyar
55	<i>Microcarbo niger</i>	Little Cormorant	Choto Pankouri
56	<i>Ardeola grayii</i>	Indian Pond Heron	Deshi Kani Bok

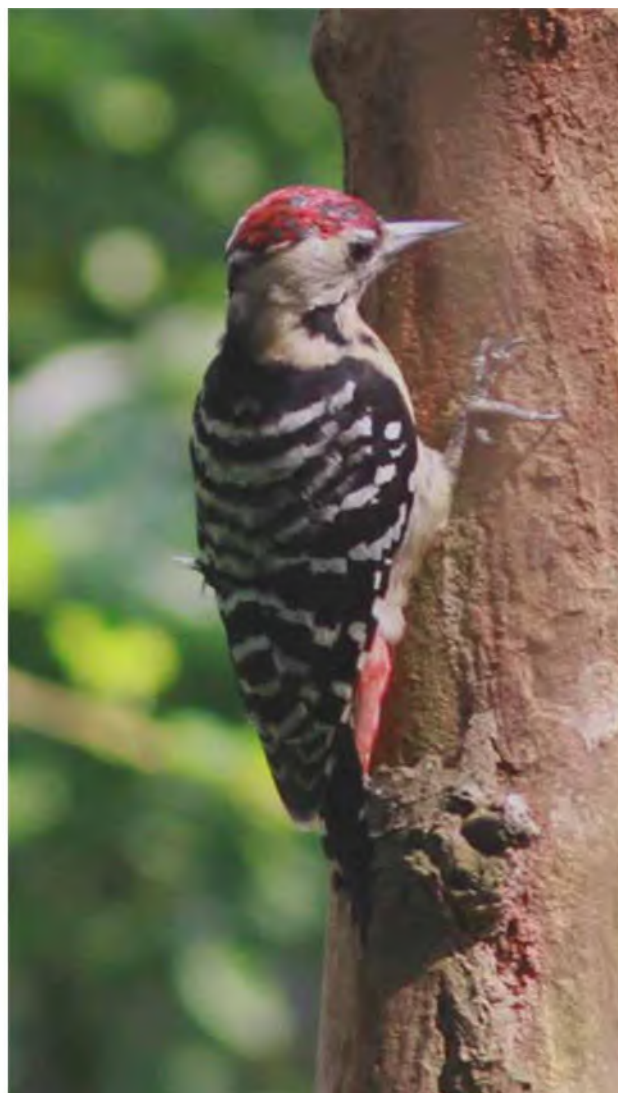
SL.No.	Species Name	Common Name	Local name
57	<i>Bubulcus ibis</i>	Cattle Egret	Go-Boga
58	<i>Ardea intermedia</i>	Intermediate Egret	Majhla Bok
59	<i>Ardea alba</i>	Great White Egret	Boro boga
60	<i>Ardea cinerea</i>	Grey Heron	Dhupni Bok
61	<i>Butorides striata</i>	Green-backed Heron	Khudey Bok, Shobuj Bok, Kura Bok
62	<i>Anastomus oscitans</i>	Asian Openbill	Shamkhol
63	<i>Chloropsis aurifrons</i>	Golden-fronted Leafbird	Shonakopali Horbola
64	<i>Lanius schach</i>	Long-tailed Shrike	Lenja Latora
65	<i>Lanius cristatus</i>	Brown Shrike	Khoira Latora
66	<i>Dendrocitta vagabunda</i>	Rufous Treepie	Khoira Harichacha, Hari Chacha
67	<i>Corvus splendens</i>	House Crow	Pati Kak
68	<i>Corvus macrorhynchos</i>	Large-billed Crow	Dar Kak
69	<i>Coracina javensis</i>	Large Cuckooshrike	Boro Kabashi
70	<i>Tephrodornis pondicerianus</i>	Common Woodshrike	Pati Bonlatora
71	<i>Pericrocotus cinnamomeus</i>	Small Minivet	Choto Saheli, Sath Saili
72	<i>Oriolus xanthornus</i>	Black-hooded Oriole	Kalamatha Benebou
73	<i>Dicrurus macrocercus</i>	Black Drongo	Kala Fingey
74	<i>Dicrurus aeneus</i>	Bronzed Drongo	Bronze Fingey
75	<i>Dicrurus leucophaeus</i>	Ashy Drongo	Metey Fingey
76	<i>Hypothymis azurea</i>	Black-naped Monarch	Kalaghar Rajon
77	<i>Aegithina tiphia</i>	Common Iora	Pati Fotikjol, Towfik
78	<i>Rhipidura albicollis</i>	White-throated Fantail	Dholagola Chatighurani
79	<i>Geokichla citrina</i>	Orange-headed Thrush	Komla Dama
80	<i>Copsychus saularis</i>	Oriental Magpie -robin	Doel
81	<i>Ficedula albicilla</i>	Taiga Flycatcher	Taiga Chutki
82	<i>Eumyias thalassinus</i>	Verditer Flycatcher	Nil Katkatia, Ambar Chutki
83	<i>Cyornis poliogenys</i>	Pale-chinned Blue-flycatcher	Dholagola Chutki
84	<i>Gracupica contra</i>	Asian Pied Starling	Pakra Shalik

SL.No.	Species Name	Common Name	Local name
85	<i>Sturnia malabaricus</i>	Chestnut-tailed Starling	Khoiralej Kathshalik
86	<i>Acridotheres tristis</i>	Common Myna	Bhat Shalik
87	<i>Acridotheres fuscus</i>	Jungle Myna	Jhuti Shalik
88	<i>Parus major</i>	Great Tit	Boro Tit
89	<i>Riparia riparia</i>	Sand Martin	Bali Nakuti
90	<i>Hirundo rustica</i>	Barn Swallow	Pati Ababil
91	<i>Pycnonotus cafer</i>	Red-vented Bulbul	Bangla Bulbul
92	<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	Sipahi Bulbul
93	<i>Iole virescens</i>	Olive Bulbul	Jolpai Bulbu
94	<i>Cisticola juncidis</i>	Zitting Cisticola	Bhomra Soton
95	<i>Prinia hodgsonii</i>	Grey-breasted Prinia	Meteybook Prina
96	<i>Prinia rufescens</i>	Rufescent Prinia	Lalche Prinia
97	<i>Zosterops palpebrosus</i>	Indian White-eye	Udoi Dholachokh, Shet-ankhi
98	<i>Phylloscopus fuscatus</i>	Dusky Warbler	Kalchey Futki
99	<i>Acrocephalus dumetorum</i>	Blyth's Reed Warbler	Blaither Nolfutki, Tikra
100	<i>Helopsaltes certhiola</i>	Pallas's Grasshopper Warbler	Palasi Froringfutki
101	<i>Phylloscopus inornatus</i>	Yellow-browed Warbler	Holdevru Futki
102	<i>Orthotomus sutorius</i>	Common Tailorbird	Pati Tuntuni
103	<i>Orthotomus atrogularis</i>	Dark-necked Tailorbird	Kalagola Tuntuni
104	<i>Argya striata</i>	Jungle Babbler	Bon Satarey
105	<i>Argya earlei</i>	Striated Babbler	Dagi Satarey
106	<i>Pellorneum ruficeps</i>	Puff-throated Babbler	Golafola Satarey
107	<i>Pterorhinus ruficollis</i>	Rufous-necked Laughingthrush	Lalghar Penga
108	<i>Mirafra assamica</i>	Bengal Bushlark	Bangla Jharbhorot
109	<i>Dicaeum cruentatum</i>	Scarlet-backed Flowerpecker	Lalpith Fuljhuri
110	<i>Dicaeum erythrorhynchos</i>	Pale-billed Flowerpecker	Meteythot Fuljhuri
111	<i>Cinnyris asiatica</i>	Purple Sunbird	Beguni Moutushi
112	<i>Leptocoma zeylonica</i>	Purple-rumped Sunbird	Beguni-komor Moutushi

SL.No.	Species Name	Common Name	Local name
113	<i>Passer domesticus</i>	House Sparrow	Pati Chorui
114	<i>Motacilla alba</i>	White Wagtail	Dhola Khonjon
115	<i>Motacilla citreola</i>	Citrine Wagtail	Sitrin Khonjon
116	<i>Anthus rufulus</i>	Paddy-field Pipit	Dhani Tulika
117	<i>Anthus richardi</i>	Richard's Pipit	Richarder Tulika
118	<i>Megalurus palustris</i>	Striated Grassbird	Dagi Ghaspakhi
119	<i>Euodice malabarica</i>	Indian Silverbil	Deshi Chandithot, Dhola Munia
120	<i>Longchura punctulata</i>	Scaly-breasted Munia	Tila Munia
121	<i>Lonchura malacca</i>	Tricoloured Munia	Khoyra Munia



Lesser whistling-duck



Fulvous-breasted Woodpecker

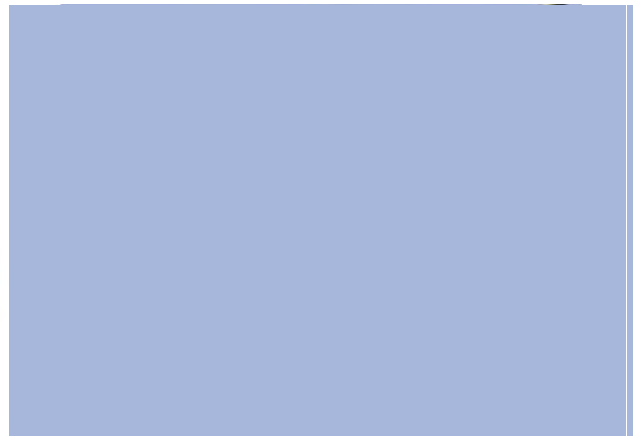
Table 2. List of common birds

SL.No.	Species Name	Common Name	Local name
1	<i>Jynx torquilla</i>	Eurasian Wryneck	Euresio Gharbetha
2	<i>Mycropterus brachyurus</i>	Rufous Woodpecker	Khoyra Kathkurali
3	<i>Psilopogon asiaticus</i>	Blue-throated Barbet	Neelgola Basanta
4	<i>Merops philippinus</i>	Blue-tailed Bee-eater	Neellej Shuichora
5	<i>Phaenicophaeus tristis</i>	Green-billed Malkoha	Sobujthoth Malkoha
6	<i>Cuculus micropterus</i>	Indian Cuckoo	Boukothakou Papia
7	<i>Psittacula alexandri</i>	Red-breasted Parakeet	Modna Tia
8	<i>Tyto alba</i>	Common Barn Owl	Lokkhi Pecha
9	<i>Otus lettia</i>	Collared Scops Owl	Konthe Nimpecha
10	<i>Ketupa zeylonensis</i>	Brown Fish Owl	Koyra Mechopecha
11	<i>Elanus auxillaris</i>	Black-shouldered Kite	Katua Chil
12	<i>Chloropsis cochinchinensis</i>	Blue-winged Leafbird	Neeldana Horbola
13	<i>Lanius tephronotus</i>	Grey-backed Shrike	Metepith Latora
14	<i>Coracina melanoptera</i>	Black-headed Cuckooshrike	Kalamatha Kabashi
15	<i>Pericrocotus roseus</i>	Rosy Minivet	Golapi Saheli
16	<i>Pericrocotus cantonensis</i>	Brown-rumped Minivet	Suinhoe Saheli
17	<i>Pericrocotus divaricatus</i>	Ashy Minivet	Metey Saheli
18	<i>Oriolus chinensis</i>	Black-naped Oriole	Kalaghar Benebou
19	<i>Artamus fuscus</i>	Ashy Woodswallow	Metey Bonababil
20	<i>Pinia inornata</i>	Plain Prinia	Nirol Prina
21	<i>Phylloscopus affinis</i>	Tickell's Leaf Warbler	Tikeler Patafutki
22	<i>Phylloscopus trochiloides</i>	Greenish Warbler	Sobje Futki
23	<i>Phylloscopus reguloides</i>	Blythe's Leaf Warbler	Blaiter Patafutki
24	<i>Abroscopus supercillius</i>	Yellow-bellied Warbler	Holdepet Futki
25	<i>Calandrella raytal</i>	Indian Short-toed Lark	Bali Bhorot
26	<i>Alauda gulgula</i>	Oriental Skylark	Udoi Avrabhorot
27	<i>Saxicola torquatus</i>	Common Stonechat	Pati Shilafidda
28	<i>Monticola solitaries</i>	Blue Rock-thrush	Neel Shiladama

SL.No.	Species Name	Common Name	Local name
29	<i>Muscicapa daurica</i>	Asian Brown Flycatcher	Asio Khoirachutki
30	<i>Muscicapa muttui</i>	Brown-breasted Flycatcher	Metebuk Chutki
31	<i>Eumyias thalassinus</i>	Verditer Flycatcher	Ambar Chutki
32	<i>Culicicapa ceylonensis</i>	Grey-headed Canary Flycatcher	Metematha Kenarichutki
33	<i>Anthreptes singalensis</i>	Ruby-cheeked Sunbird	Chunimukhi Moutushi
34	<i>Ploceus philippinus</i>	Baya Weaver	Deshi Babui
35	<i>Motacilla flava</i>	Yellow Wagtail	Holdey Khonjon
36	<i>Motacilla cinerea</i>	Grey Wagtail	Metey Khonjon
37	<i>Anthus hodgsoni</i>	Olive-backed Pipit	Jolpaipith Tulika
38	<i>Anthus roseatus</i>	Rosy Pipit	Golapi Tulika



Indochinese Roller



Chestnut Headed Bee-eater



Lineated Barbet



Pied Kingfisher



Western Koel



Greater Coucal



Rose-ringed Parakeet



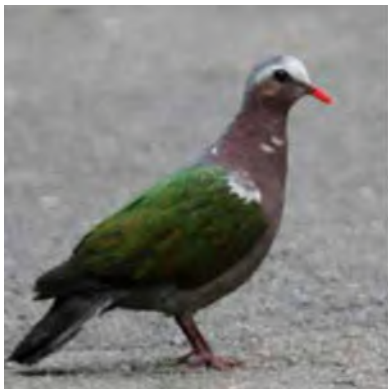
Brown Boobook



Large-tailed Nightjar



Yellow-footed Green Pigeon



Grey-capped Emerald Dove



Red Turtle Dove



White-breasted Waterhen



Green Sandpiper



Bronze-winged Jacana



Red-wattled Lapwing



Crested Serpent-eagle



Common Kestrel



Little Grebe



Oriental Darter



Little Cormorant



Grey Heron



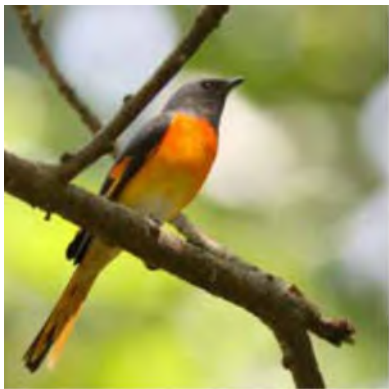
Green-backed Heron



Asian Openbill



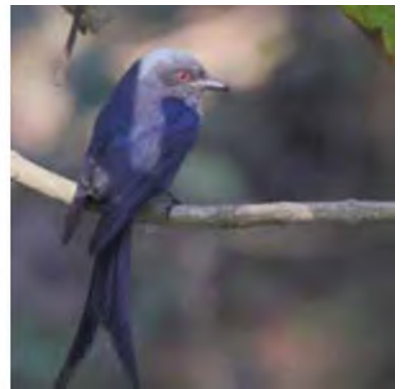
Large Cuckooshrike



Small Minivet



Bronzed Drongo



Ashy Drongo



White-throated Fantail



Orange-headed Thrush



Oriental Magpie Robin



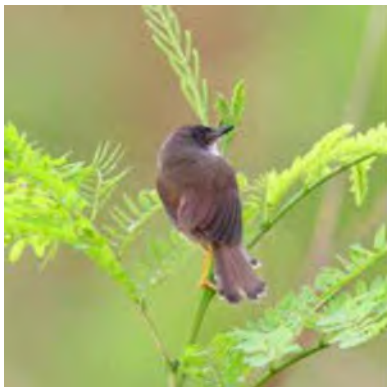
Chestnut-tailed Starling



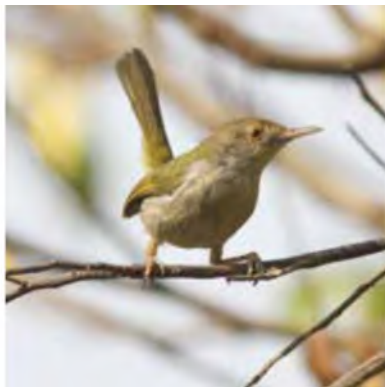
Jungle Myna



Red-whiskered Bulbul



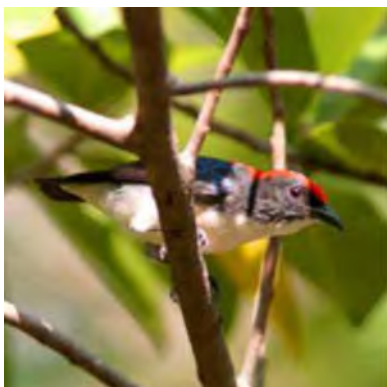
Grey-breasted Prinia



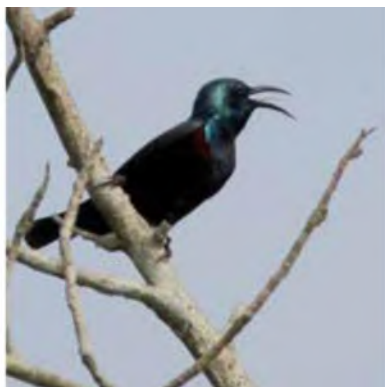
Common Tailorbird



Striated Babbler



Scarlet-backed Flowerpecker



Purple Sunbird



White Wagtail



Paddyfield Pipit



Tricoloured Munia

Birds observed in KEPZ

Reptiles			
SL.No.	Species Name	Common Name	Local name
1	<i>Dendrelaphis tristis</i>	Common Bronzeback Tree Snake	Bet Anchra, ShadharaonGeso Shap
2	<i>Amphiesma stolatum</i>	Buff Striped Keelback	DagiDhora Shap
3	<i>Ptyas korros</i>	Chinese Rat Snake	Darash Shap
4	<i>Lycodon capucinus</i>	Common Wolf Snake	Gharginni Shap
5	<i>Hemidactylus frenatus</i>	Common House Gecko	MosrinTiktiki
6	<i>Eutropis carinata</i>	Common Skink	Anjhon, Anchil
7	<i>Gekko gekko</i>	Tokay Gecko	Tokkhak
8	<i>Calotes versicolor</i>	Common Garden Lizard	Roktochosa
9	<i>Varanus bengalensis</i>	Bengal Monitor	Gui Shap



Common Wolf Snake



Common Garden Lizard



Common Skink

Reptiles observed in KEPZ

Amphibians			
SL.No.	Species Name	Common Name	Local name
1	<i>Hoplobatrachus tigerinus</i>	Indian Bullfrog	Sona Bang; Kola Bang
2	<i>Polypedates sp.</i>	Tree Frog	Gecho Bang
3	<i>Microhyla berdmorei</i>	Berdmore's narrow-mouthed Frog	BoroLaubichi Bang
4	<i>Euphlyctis sp.</i>		
5	<i>Fejervarya sp.</i>		
6	<i>Bufo bufo</i>	Common Toad	Kuno Bang, Kona Bang
7	<i>Hylaranatyleri</i>	Yellow-striped Frog	Pana Bang



Amphibians observed in KEPZ

Butterflies			Sl. No.	Species Name	Common Name
Sl. No.	Species Name	Common Name			
			32	Hypolimnas bolina	Great Eggfly
1	<i>Papilio clytia</i>	Common Mime	33	Junonia almana	Peacock Pansy
2	<i>Papilio polythes</i>	Common Mormon	34	Junonia atlites	Grey Pansy
3	<i>Papilio demoleus</i>	Lime Butterfly	35	Junonia hierta	Yellow Pansy
4	<i>Triodes helena</i>	Common Birdwing	36	Junoniaiphita	Chocolate Pansy
5	<i>Pachliopta aristolochiae</i>	Common Rose	37	Junonia lemonias	Lemon Pansy
6	<i>Appias labythea</i>	Striped Albatross	38	Lethe Europa	Bamboo Treebrown
7	<i>Catopsilia pomona</i>	Common Emigrant	39	Melanitis leda	Common Evening Brown
8	<i>Leptosia nina</i>	Psyche	40	Moduza procris	Commander
9	<i>Delias discombesi</i>	Red Spot Jezebel	41	Mycalesis persus	Common Bushbrown
10	<i>Delias pasitho</i>	Red Base Jezebel	42	Mycalesis mineus	Dark-banded Bushbrown
11	<i>Delias eucharis</i>	Painted Jezebel	43	Mycalesis visala	Long-banded Bushbrown
12	<i>Delias hyparete</i>	Common Jezebel	44	Neptis hylas	Common Sailor
13	<i>Eurema hecabe</i>	Common Grass Yellow	45	Neptis jumbah	Chestnut-streaked Sailor
14	<i>Eurema blanda</i>	Three Spot Grass Yellow	46	Pantoporia hordonia	Common Lascar
15	<i>Hebomoia glaucippe</i>	Great Orange Tip	47	Partenos sylvia	Clipper
16	<i>Pareronia valeria</i>	Common Wanderer	48	Tirumala limniace	Blue Tiger
17	<i>Appias lycinda</i>	Chocolate Albatross	49	Phalanta phalanta	Common Leopard
18	<i>Catopsilia pyranthe</i>	Mottled Emigrant	50	Polyura athamas	Common Nawab
19	<i>Eurema andersoni</i>	One Spot Grass Yellow	51	Cynitia lepidea	Grey Count
20	<i>Acraea violae</i>	Tawny Coster	52	Tanaecia julii	Common Earl
21	<i>Ariadne ariadne</i>	Angled Castor	53	Ypthima baldus	Common Fivering
22	<i>Ariadne merione</i>	Common Castor	54	Ypthima huebneri	Common Fourring
23	<i>Athyma perius</i>	Common Sergeant	55	Cirrochroa tyche	Common Yeoman
24	<i>Athyma nefte</i>	Color Sergeant	56	Vagran segista	Vagrant
25	<i>Cethosia cyane</i>	Leopard Lacewing	57	Anthene emolus	Ciliate Blue
26	<i>Cupha erymanthis</i>	Rustic	58	Anthene lycaenina	Pointed Ciliate Blue
27	<i>Danaus chrysippus</i>	Plain Tiger	59	Caleta decidia	Angled Pierrot
28	<i>Danaus genuta</i>	Striped Tiger	60	Castalius rosimon	Common Pierrot
29	<i>Discophora sondaica</i>	Common Duffer	61	Discolampa ethion	Banded Blue Pierrot
30	<i>Elymnias hypermnestra</i>	Common Palmfly	62	Carochrysops strabo	Forget Me Not
31	<i>Euthalia aconthea</i>	Common Baron	63	Chilades lajus	Lime Blue

Butterfly			Sl. No.	Species Name	Common Name
			75	Arhopala agaba	Purple Glazed Oakblue
64	<i>Euchrysops cnejus</i>	Gram Blue	76	Ampittadio scorides	Bush Hopper
65	<i>Jamides celeno</i>	Common Cerulean	77	Ancistroides nigrita	Chocolate Demon
66	<i>Jamides bochus</i>	Dark Cerulean	78	Matapa aria	Common Red Eye
67	<i>Lempides boeticus</i>	Pea Blue	79	Gangara thyrasis	Giant Red Eye
68	<i>Neopithecops zalmora</i>	Quaker	80	Taiades japetus	Common Snow Flat
69	<i>Pseudozizeeria maha</i>	Pale Grass Blue	84	Pelopidas agna	Dark Banded Swift
70	<i>Rapala manea</i>	Slate Flash	81	Telicota bambusae	Dark Palm Dart
71	<i>Zizula hylax</i>	Tiny Grass Blue	82	Suastus gremius	Palm Bob
72	<i>Zizina otis</i>	Lesser Grass Blue	83	Suastus minuta	Small Palm Bob
73	<i>Zazeeria karsandra</i>	Dark Grass Blue	85	Parnana	Parnara
74	<i>Charana mandarinus</i>	Mandarin Blue	86	Zemoros flegyas	Punchinello



LEMON PANSY



CHOCOLATE PANSY



COMMON WANDERER



RUSTIC



COMMON BARON



COMMON LIME



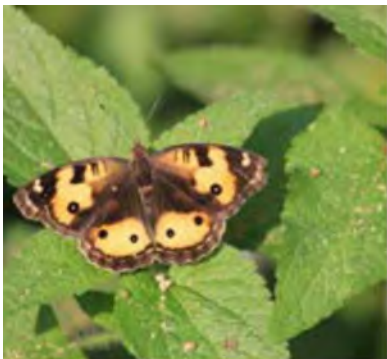
GREY PANSY



COMMON PALMFLY



COMMON EVENING BROWN



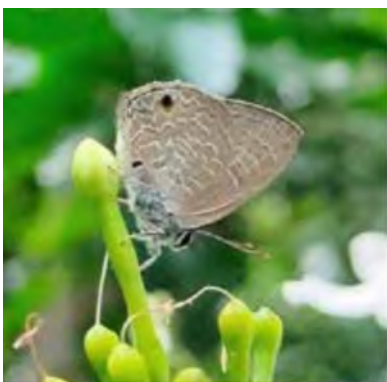
YELLOW PANSY



PEACOCK PANSY



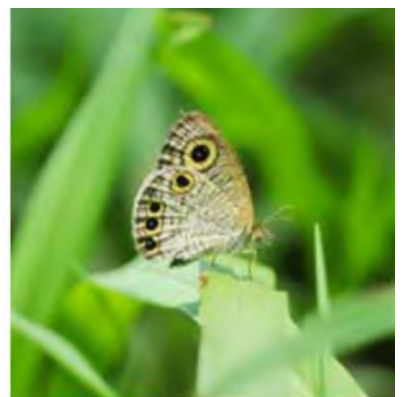
POINTED CILIATE BLUE



CILIATE BLUE



COMMON YEOMEN



COMMON FOURRING



COMMON FIVERING



COMMON SNOWFLAT



GRAM BLUE



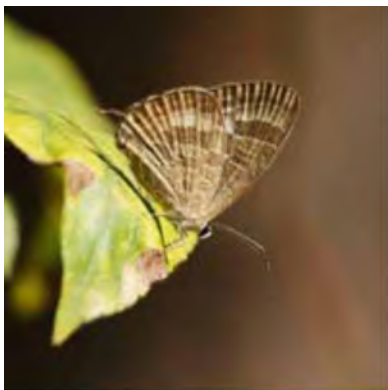
QUAKER



FORGET ME NOT



CHOCOLATE DEMON



DARK CERULEAN



COMMON LEOPARD



LIME BLUE



GREY COUNT



COMMON LASCAR



PUNCHINELLO



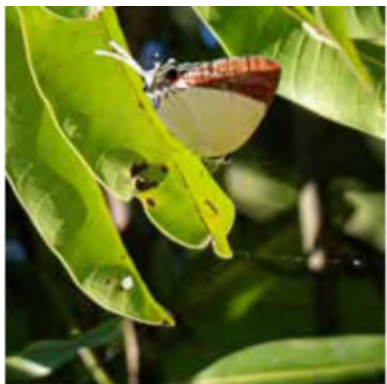
COMMON EARL



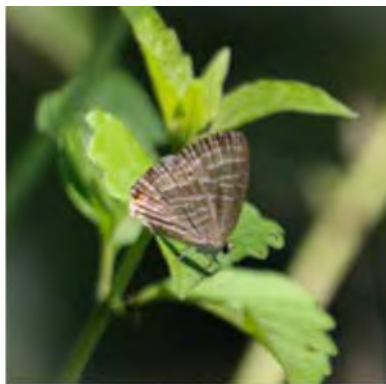
GIANT RED EYE



COMMON SAILER



MANDARIN BLUE



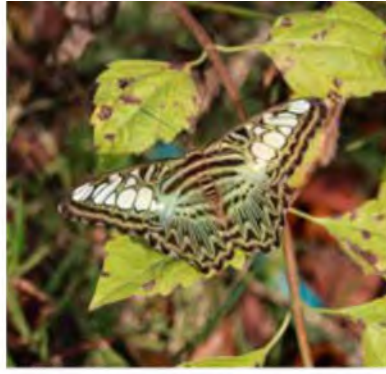
COMMON CERULEAN



SLATE FLASH



BLUE TIGER



CLIPPER



BUSH HOPPER



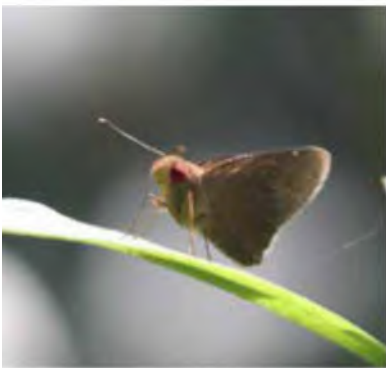
COMMON PIERROT



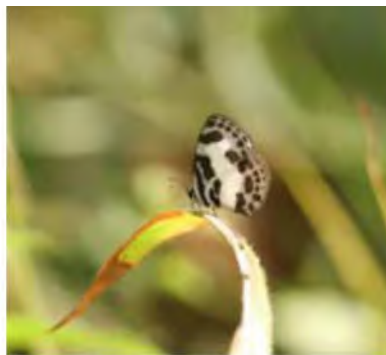
PURPLE GLAZED OAKBLUE



COMMON NAWAB



COMMON RED EYE



ANGLED PIERROT



BANDED BLUE PIERROT



CHESTNUT STREAKED SAILER



DARK PLAM DART



LESSER GRASS BLUE



PEA BLUE



DARK GRASS BLUE



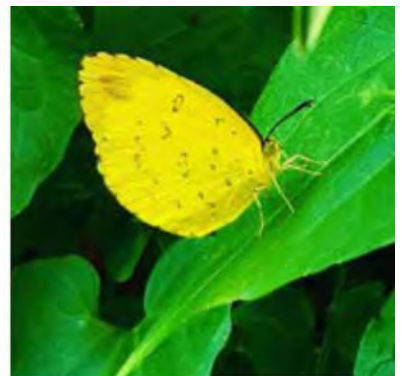
DARK BANDED BUSHBROWN



STRIPED TIGER



ANGLED CASTOR



COMMON GRASS YELLOW



COMMON MIME



PAINTED JEZEBEL



RED SPOT JEZEBEL



COMMON SERGEANT



LEOPARD LACEWING



COMMON EMIGRANT



GREAT EGGFLY



COMMON CASTOR



STRIPED ALBATROSS



MOTTLED EMIGRANT



COMMON MORMON



CHOCOLATE ALBATROSS



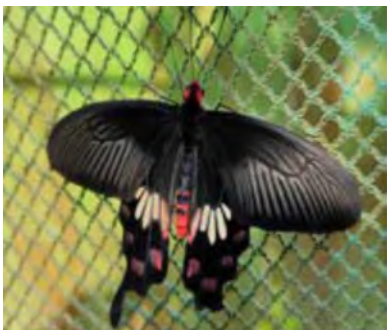
PLAIN TIGER



COMMON JEZEBEL



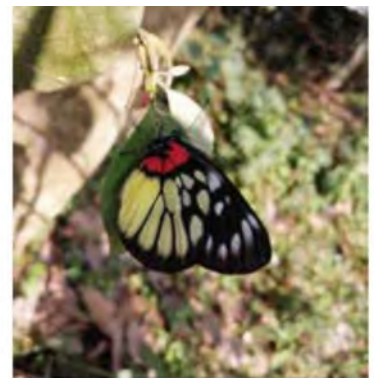
COLOR SERGEANT



COMMON ROSE



COMMON BIRDWING



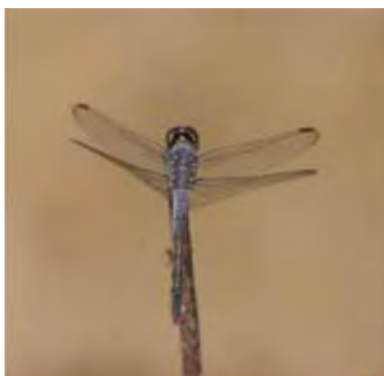
RED BASE JEZEBEL

Dragonflies and damselflies

Sl. No.	Species Name	Common Name	Sl. No.	Species Name	Common Name
1	<i>Agriocnemis pygmaea</i>	Pygmy Dartlet	11	<i>Crocothemis servilia</i>	Ruddy Marsh Skimmer
2	<i>Agriocnemis lacteola</i>	Milky Dartlet	12	<i>Potamarcha congener</i>	Yellow-tailed Ashy Skimmer
3	<i>Agriocnemis femina</i>	Pruinosed Dartlet	13	<i>Rhyothemis variegata</i>	Common Picture Wing
4	<i>Ischnururubilio</i>	Western Golden Dartlet	14	<i>Brachythemis contaminata</i>	Ditch Jewel
5	<i>Pseudagrion rubriceps</i>	Saffron-faced Blue Dart	15	<i>Neurothemis fulvia</i>	Fulvous Forest Skimmer
6	<i>Onychargia atrocyana</i>	Black Marsh Dart	16	<i>Neurothemis tullia</i>	Pied Paddy Skimmer
7	<i>Ceriagrion coromandelianum</i>	Coromandel Marsh Dart	17	<i>Pantala flavescens</i>	Wandering Glider
8	<i>Ceriagrion cerinorubellum</i>	Orange-tailed Marsh Dart	18	<i>Diplacodes trivialis</i>	Ground Skimmer
9	<i>Orthetrum sabina</i>	Green Marsh Hawk	19	<i>Tholymis tillarga</i>	Coral-tailed Cloud Wing
10	<i>Trithemis pallidinervis</i>	Long-legged Marsh Glider	20	<i>Brachydiplax sp</i>	-



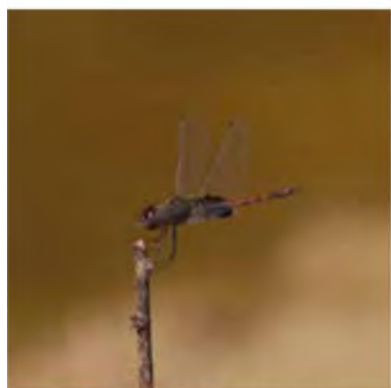
SAFFRON-FACED BLUE DART



YELLOW TAILED ASHY SKIMMER



ORANGE TAILED MARSH DART



BLACK MARSH TROTTER



CRIMSON-TAILED MARSH HAWK



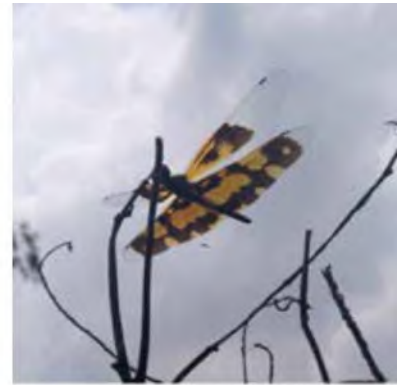
GREEN MARSH HAWK



RUDDY MARSH SKIMMER



COROMANDAL MARSH DART



COMMON PICTURE WING



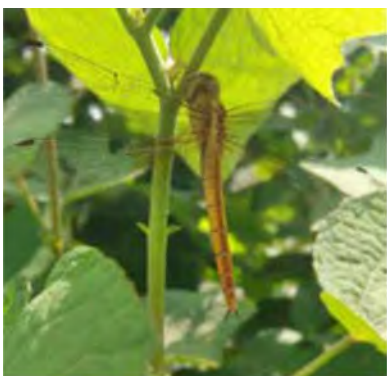
DITCH JEWEL



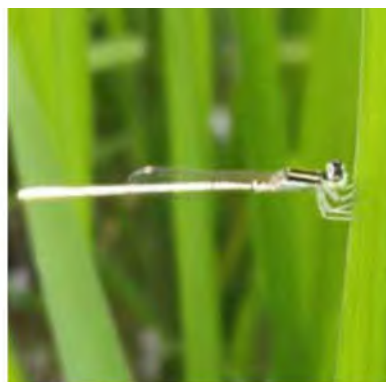
FULVOUS FOREST SKIMMER



GROUND SKIMMER



CORAL TAILED CLOUD WING



MILKY DARTLET



LONG LEGGED MARSH GLIDER