UNEARTH THE WETLAND BIRDS OF BENGALURU

A HAND GUIDE

First Edition

Vrijulal MV | Chaturved Shet R | Siri H.P

Dr. KH Vinayakumar Raj Kishore Singh

Environmental Information System (ENVIS)
Environmental Management and Policy
Research Institute (EMPRI)

R,

Harish R. Bhat Science Foundation (HRBSF)











UNEARTH THE WETLAND BIRDS OF BENGALURU

A HAND GUIDE

Collaboration Work By

Environmental Information System (ENVIS)

Environmental Management and Policy Research Institute (EMPRI)

 "Hasiru Bhavana" JP Nagar 5th Phase Bangalore: 560078, Website : www.karenvis.nic.in

&

Harish R. Bhat Science Foundation (HRBSF)

BEML layout, 3rd Stage, Rajarajeshwari Nagar, Bangalore—560098,

 $Website: \underline{www.hrbsf.org}$

TABLE OF CONTENTS

Sl.No.	Tittle	Page No.
1	Introduction	1
2	How to read this guide?	3
3	Identification Features of A Bird	4
4	Checklist of 50 Wetland Birds of Bangalore	6
5	Aquatic Birds	9
6	Wading Birds	20
7	Rail Birds	36
8	Birds of Prey	40
9	Other Common Birds	47
10	References	60
11	About Authors	61

Wetland Birds of Bengaluru

Introduction

Wetlands are unique ecosystems that provide a variety of benefits for us humans, like recharging of underground water, purifying water biologically, reduces impact of floods, regulates micro climate, livelihood for fishermen, source of fodder (macrophytes), surface water for various domestic uses, recreation and a habitat for various flora and fauna.

Birds are studied as bio-indicators of an ecosystem across the globe due to their varied size and adaptations of which, some are specific to their food or the habitat they live in. Assessing a habitat by observing the species of birds present there is effective, inexpensive and one need not undergo rigorous training of any sort. Keen observation for identification, understanding of birds and documentation is the main key.

In a wetland ecosystem, observation of birds becomes easier as there are large open spaces to spot birds, unlike in a dense forest where visibility is low. Birds and wetlands are linked on various factors like the availability, depth and quality of water; availability of food source and nesting opportunities; presence or absence of predators.

Wetland Birds

There are various species of birds that visit a wetland for various purposes, of which some are resident (birds seen throughout

the year) and others are migratory (birds seen seasonally). These birds are categorized as below,

- 1. Aquatic Birds (Ducks, Grebes etc.)
- 2. Wading Birds (Herons, Egrets etc.)
- 3. Rail Birds (Swamphens, Jacanas etc.)
- 4. Birds of Prey (Kites, Eagles etc.)
- 5. Other common birds (Crows, Pigeons etc.)

Most of the above mentioned birds are seen in the wetlands of Bengaluru, Karnataka.

Monitoring the birds around the wetlands may be the easiest way to understand the status of the ecosystem. The more the species are varied, the healthier the ecosystem is. This is mainly due to the interdependency of birds with other species as prey or predators. This guide helps in identifying the species that are commonly seen around the wetlands of Bengaluru city. 50 common species have been described with photographs, common name, scientific name, Kannada name, family, food habits, their presence throughout the year or seasonal and IUCN status.

A brief description of the birds such as local names, diet, family and status are provided for clear understanding. Locations of the birds will vary from season to season depending on the several factors.

How to read this guide?



Local Name / Kannada Name



Family







































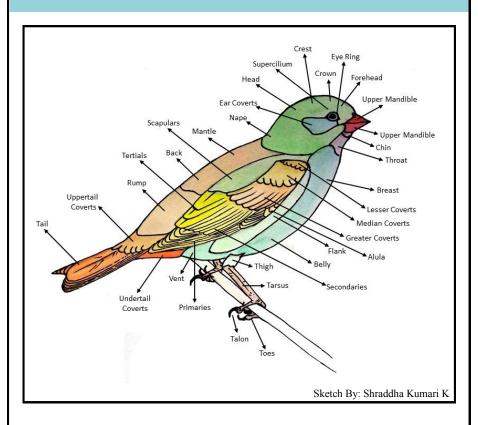






Nearly Threatened

IDENTIFICATION FEATURES OF A BIRD



Crown: Top area of the head.

Forehead: Anterior portion of the head.

Ear Coverts: Feathers that cover the ear area Eye Ring: A ring of colour around the eye

Supercilium: Feathers passing from the anterior point of the eye;

over the eye to near its posterior point.

Nape: The area behind the neck

Chin: Ventral leathering below the bill ending where throat begins.

Throat: The area below the lower mandible.

Mantle: Area below the nape.

Scapulars: Feathers that cover the base of the wing

Rump: The area below the mantle down to the uppertail coverts.

Uppertail Coverts: Feathers that cover the upper base of the tail.

Lesser Coverts: Feathers near the leading edge of a wing that overlap the bases of the Median Coverts.

Median Coverts: Feathers that overlap the bases of the Greater Coverts.

Greater Coverts: Overlap the bases of the Secondaries.

Breast: The area surrounded by the bottom of the throat, the sides or bend of wing area, and the top of the belly.

Flank: The side areas below the folded wing.

Belly: The area surrounded by the breast, the flanks, and the Vent. **Vent:** Refers to the area between the belly and undertail coverts.

Undertail Coverts: Feathers that overlap the bottom base of the tail.

Tarsus: It refers to the part of a bird's leg between the thigh and the foot.

Tail: (Retrices) a single transverse row of quills on the margin of the anatomical tail.

Thigh: Long leg bone close to the body, fused to the fibula between the femur and the tarsus.

Alula: The digit on the wings similar to a thumb.

Primaries: The largest of the flight feathers that help the bird propel through the air.

Secondary: These feathers are shorter than primaries. giving lift to the birds during flight.

Tertiary: These are the shortest and innermost feathers on the wings. They only support the flight along with secondaries and primaries.

Talon: These are hooked claw in the feet of any bird of prey.

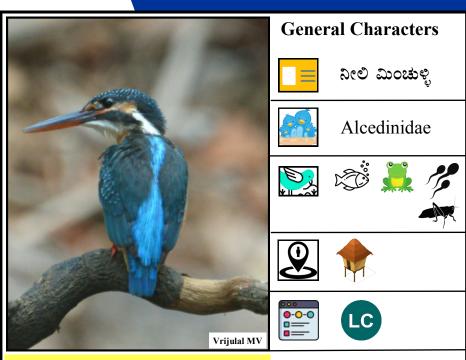
Crest: A tuft of feathers on the head of the bird

Checklist of 50 Wetland Birds of Bengaluru

Checklist of 50 Wetland Dif us of Dengaluru				
CATEGORY	COMMON NAME	SCIETIFIC NAME		
	Common Kingfisher	Alcedo atthis		
	Great Cormorant	Phalacrocorax carbo		
	Indian Cormorant	Phalacrocorax fuscicollis		
	Indian Spot-billed Duck	Anas poecilorhyncha		
	Little Cormorant	Microcarbo niger		
AQUATIC BIRDS	Little Grebe	Tachybaptus ruficollis		
DIRES	Oriental Darter	Anhinga melanogaster		
	Pied Kingfisher	Ceryle rudis		
	River Tern	Sterna aurantia		
	Spot-billed Pelican	Pelecanus philippensis		
	White-throated Kingfisher	Halcyon smyrnensis		
	Asian Openbill	Anastomus oscitans		
	Black-crowned Night Heron	Nycticorax nycticorax		
	Black-headed Ibis	Threskiornis melanocephalus		
	Black-winged Stilt	Himantopus himantopus		
	Bronze-winged Jacana	Metopidius indicus		
WADING	Cattle Egret	Bubulcus ibis		
BIRDS	Common Sandpiper	Actitis hypoleucos		
	Green Sandpiper	Tringa ochropus		
	Grey Heron	Ardea cinerea		
	Indian Pond Heron	Ardeola greyii		
	Intermediate Egret	Ardea intermedia		
	Little Egret	Egretta garzetta		
	Painted Stork	Mycteria leucocephala		

CATEGORY	COMMON NAME	SCIETIFIC NAME	
WADING BIRDS	Pheasant-tailed Jacana	Hydrophasianus chirurgus	
	Purple Heron	Ardea purpurea	
	Red-wattled Lapwing	Vanellus indicus	
RAIL	Common Moorhen	Gallinula chloropus	
	Eurasian Coot / Common Coot	Fulica atra	
BIRDS	Grey-headed Swamphen	Porphyrio poliocephalus	
	White-breasted Waterhen	Amaurornis phoenicurus	
	Black Kite	Milvus migrans	
	Black-winged Kite	Elanus caeruleus	
BIRDS OF PREY	Booted Eagle	Hieraaetus pennatus	
	Brahminy Kite	Haliastur indus	
	Oriental Honey Buzzard / Crested Honey Buzzard	Pernis ptilorhynchus	
	Shikra	Accipiter badius	
	Spotted Owlet	Athene brama	
	Ashy Prinia	Prinia socialis	
	Asian Koel	Eudynamys scolopaceus	
	Blue Rock Pigeon	Columba livia	
	Common Tailorbird	Orthotomus sutorius	
	House Crow	Corvus splendens	
OTHER	Indian Jungle Crow	Corvus culminates	
COMMON BIRDS	Laughing Dove / Little Brown Dove	Spilopelia senegalensis	
	Oriental Magpie Robin	Copsychs saularis	
	Pied Bushchat	Saxicola caprata	
	Rose-ringed Parakeet	Psittacula krameri	
	Spotted Dove	Spilopelia chinensis / Streptopelia chinensis	
	White-browed Wagtail	Motacilla maderaspatensis	

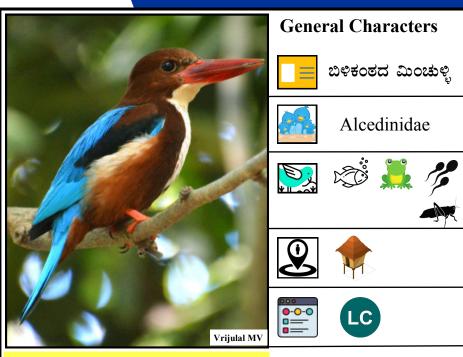
AQUATIC BIRDS



Common Kingfisher Alcedo atthis

A small bird with a short tail, long bill, bright blue upperparts and orange underparts, have white on the neck and patches on each sides towards the back. Legs are red. Seen on branches or rocks waiting to dive and catch their prey.





White-throated Kingfisher Halcyon smyrnensis

A brightly coloured bird slightly smaller than a Myna. It has a brown head, blue upper parts, wings and tail. Prominent white throat and breast. Bright red beak and legs. White patches are visible in the wings during flight. This species are found around lakes and very often very far away from water bodies as it belong to the group of woodland kingfishers.







ದೊಡ್ಡ ನೀರುಕಾಗೆ



Phalacrocoracidae













Great Cormorant Phalacrocorax carbo

A large duck like bird that is mainly black with white on the throat and cheeks. Often seen diving in the water or drying their wings on the shores or trees around the water body.







ನೀರುಕಾಗೆ



Phalacrocoracidae







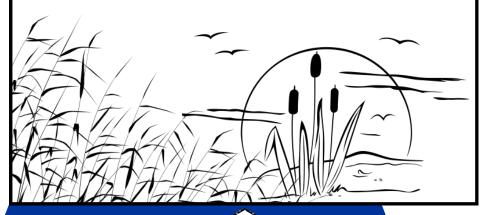


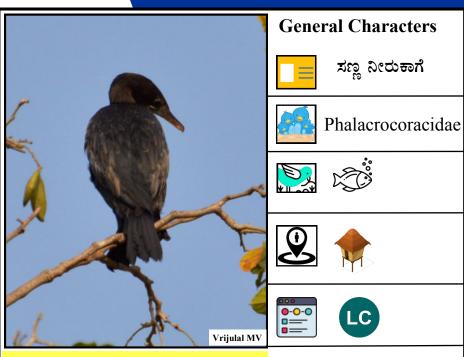




Indian Cormorant Phalacrocorax fuscicollis

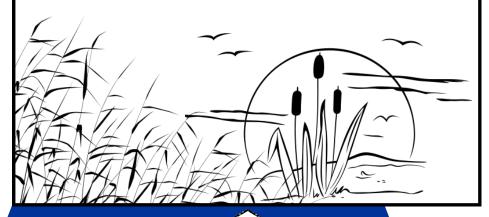
This is a large bird similar to the greater cormorant with dark brown plumage with black markings. Lacks the white patches. Has a longer tail compared to Great Cormorant.

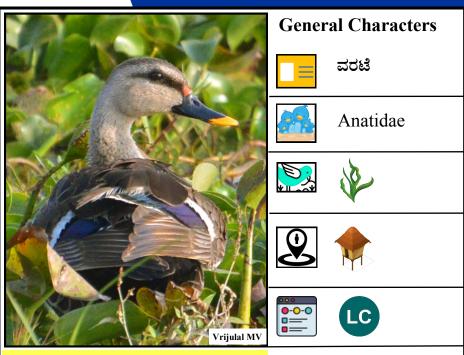




Little Cormorant Microcarbo niger

Smallest of all cormorants in Bengaluru. Mainly blackish to brownish with a small crest. Seen diving or drying their wings perched on branches or rocks around the lakes.





Indian Spot-billed Duck Anas poecilorhyncha

This is a medium sized waterbird that is commonly found in Bengaluru's lakes. It has scale like marking throughout the body, long neck and a bill with red at the base and yellow at the tip. Usually seen swimming in pairs or flocks, rarely seen alone.





Little Grebe Tachybaptus ruficollis

A small water bird, often seen diving underwater frequently looking for food. Brownish grey in colour. During the breeding season males can be distinguished by their rufous neck and white cheeks.







ಹಾವಕ್ಕಿ



Anhingidae











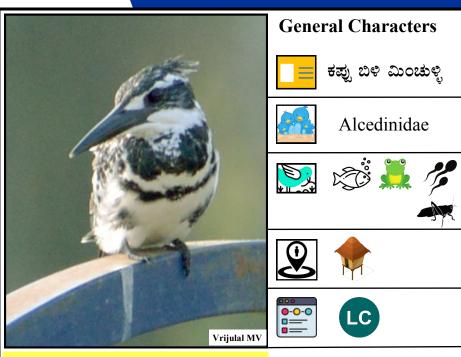


Oriental Darter

Anhinga melanogaster

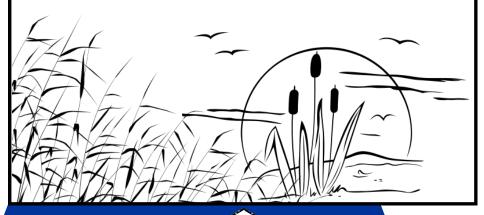
A medium to large water bird. They have a long, slim, brownish head and neck, dagger like bill and long black tail. Has a white cheek stripe that extends to the sides of the neck. Black body with silver stripes on the wings.





Pied Kingfisher Ceryle rudis

This is a medium sized Kingfisher that is completely black and white with a crest. Would be seen perching on branches or hovering before it dives into the water to catch its prey.







ರೀವ ಹಕ್ಕಿ



Laridae













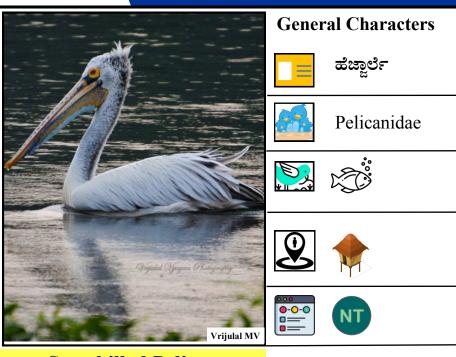


River Tern

Sterna aurantia

This is a medium sized bird seen flying over water bodies and catching fish as they fly using their beaks. Mainly greyish white with yellow beak and has a black mask over the eye through the crown and nape.





Spot-billed Pelican Pelecanus philippensis

This is a large water bird with a very long beak. It is greyish white with a small crest and a brownish tail. Seen roosting on trees of islands or by the sides of the water body, or swimming and scooping for fish often.



WADDING BIRDS





ಬಾಯ್ಕಳಕ



Ciconiidae















Asian Openbill

Anastomus oscitans

This is a large bird and a medium sized wader. Has a grey colour body during non-breeding season and white body during breeding season, with black wings and tail. It has a long bill that has a gap between the upper and lower mandible in adults. Seen in the marshy areas around the water body or roosting on trees on the islands in the lakes





ಕತ್ತಲ ಗುಪ್ಪಿ

Ardeidae





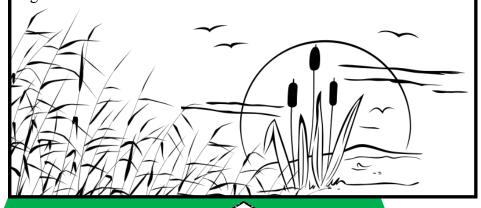


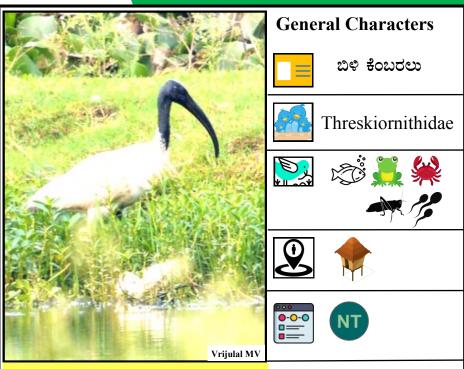




Black-crowned Night Heron Nycticorax nycticorax

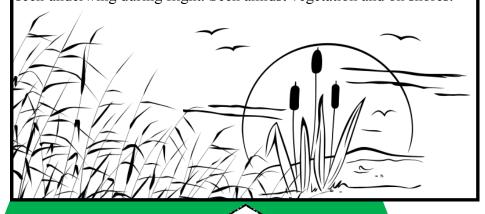
A light grey colored bird with black crown and back. Has red eyes, yellow short legs and round grey tail. Both male and female are similar in appearance but males are slightly larger. Seen on the shores, amidst vegetation or on trees.





Oriental White Ibis / Black-headed Ibis Threskiornis melanocephalus

It is a medium sized wading bird with long legs and curved beak. Mainly white in colour with a contrasting black head. A red marking is seen underwing during flight. Seen amidst vegetation and on shores.







ಮೆಟ್ಟುಗೋಲು ಪಕ್ಷಿ



Recurvirostridae













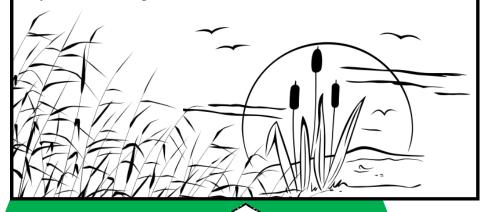


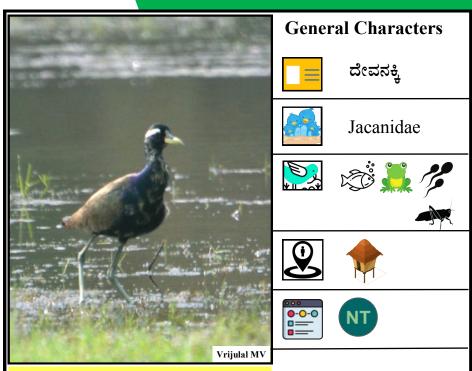


Black Winged Stilt

Himantopus himantopus

This is a small to medium sized wading bird with long pink legs, black on the upperparts and white on the underparts. Males have black cap during non-breeding season. Seen in the shallow areas of the water body and amidst vegetation.

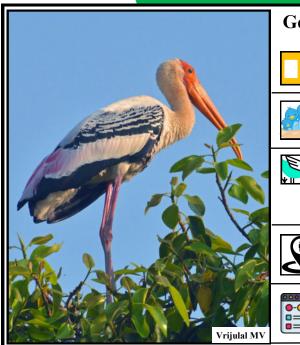




Bronze Winged Jacana Metopidius indicus

It's a small to medium sized wading bird, found around water bodies, amidst vegetation. They have bronze wings, with the head, neck and breast in blackish blue. Has a prominent supercilium from the eye to the back of the head. Easily identifiable during flight with their hanging legs with long digits (Toes).







ಬಣ್ಣದ ಕೊಕ್ಕರೆ



Ciconiidae













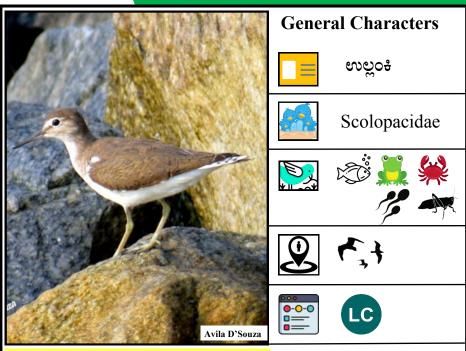


Painted Stork

Mycteria leucocephala

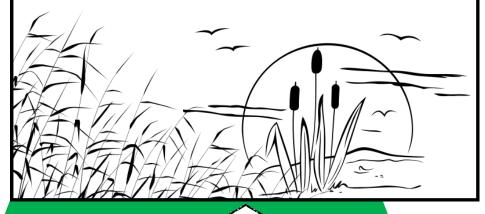
This is a large wader bird that is mainly white with black breast band, and scale like markings on the wings. The tips of the wing feathers and rump has pink. The face is bare in orange or red. Pinkish white long legs and a long yellow beak. Seen in the shallow areas of the water body and amidst vegetation or on trees for roosting.

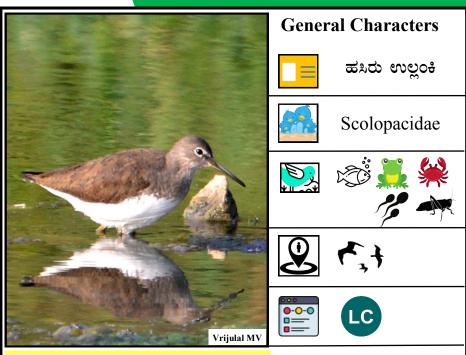




Common Sandpiper Actitis hypoleucos

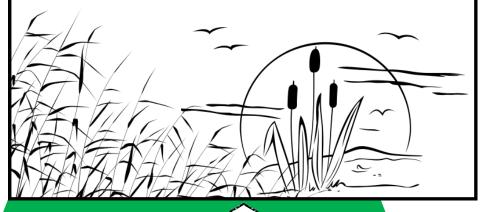
This is a small wader that has brown upperparts with fine white and brown markings, and white underparts. Has a brown bar starting from the bill across the eye towards the nape. Seen in the shallow areas of the water body and amidst vegetation.





Green Sandpiper Tringa ochropus

This is a small wader that has a dark brown upperparts with a greenish tinge. Head, neck and breast is greyish and white underparts. During the breeding season, the males will have white spots on the back. Seen in the shallow areas of the water body and amidst vegetation.







ಕಬ್ಬಾರೆ ಹಕ್ಕಿ / ಬೂದು ಬಕ



Ardeidae











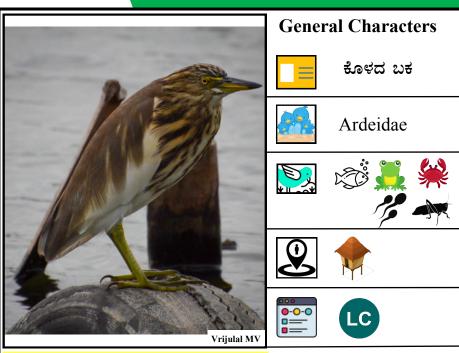


Grey Heron

Ardea cinerea

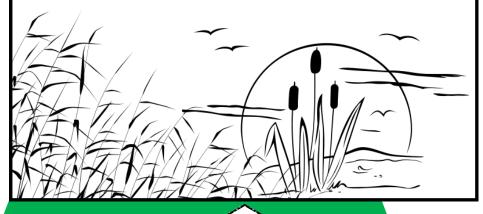
This is a medium sized wading bird with ashy grey in the upperparts and lighter grey in the underparts. Head and neck are white with a dark blue broad supercilium. A streak of dark blue along the front of the neck. Seen in the shallow areas of the water body and amidst vegetation or on trees for roosting.

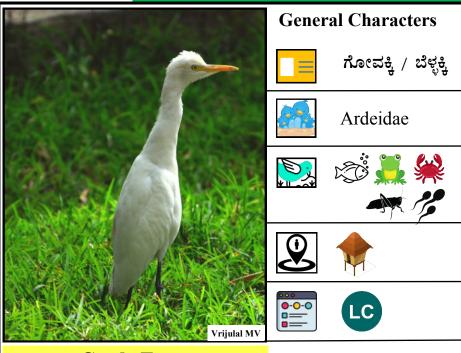




Indian Pond Heron *Ardeola greyii*

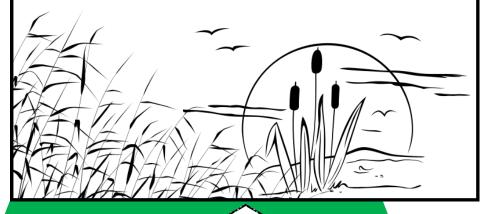
A medium sized wader that has short neck, dull brown back, streaked dark brown head and neck, white coloured wings visible during flight. In breading season, males turn to dark maroon back, whiter, buffy head and neck. Found around water bodies and marshy areas.





Cattle Egret Bubulcus ibis

Bird with white plumage, short neck (among egrets), yellow beak and eyes, black legs. Seen around grazing cattle to prey on insects that evade the cattle during their grazing or amidst vegetation in the water bodies.





General Characters



ಮಧ್ಯಮ ಬೆಳ್ಳಕ್ಕಿ



Ardeidae











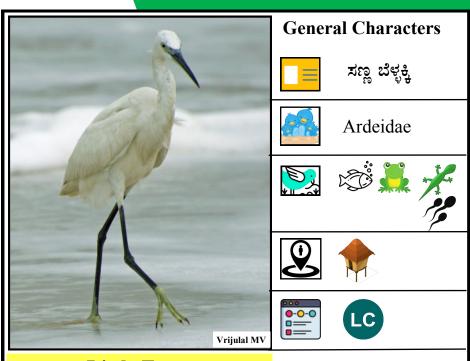




Intermediate Egret / Median Egret Ardea intermedia

A white coloured medium sized wader, larger than Little Egret and smaller than Great Egret. Non-breeding birds have dark legs and thick yellow bill. Breeding birds have reddish or black bill and long filament like feathers on their neck and back. Seen in the shallow areas of the water body and amidst vegetation or on trees for roosting.

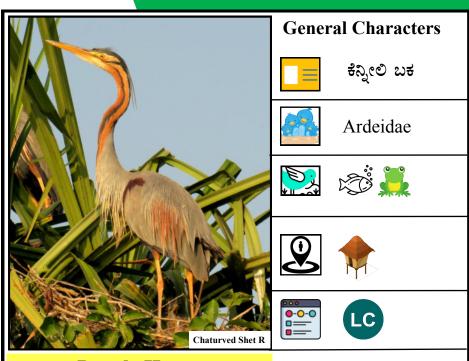




Little Egret Egretta garzetta

Smallest of the egrets, found near fresh water bodies and coastal regions. Bright white body, black beak and legs with yellow feet. Males develop two long plumes at the back of the head, breast and back, during breeding season. Seen in the shallow areas of the water body and amidst vegetation or on trees for roosting.

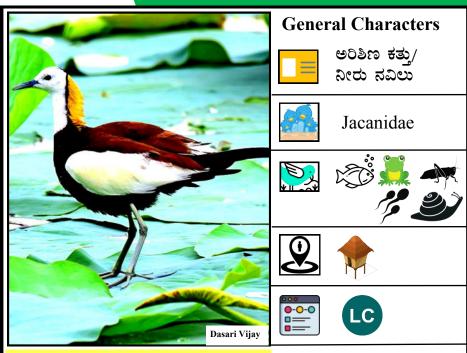




Purple Heron Ardea purpurea

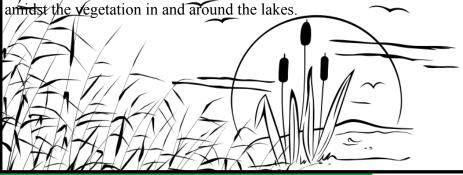
It is a medium sized wading bird that is purplish grey at the back, forehead and crown. A similar coloured stripe from the beak along the sides of the neck. Chestnut in the neck. Seen in the shallow areas and shores of the water body and amidst vegetation or on trees for roosting.

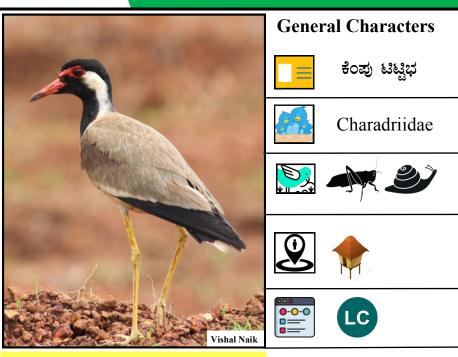




Pheasant-tailed Jacana *Hydrophasianus chirurgus*

This is a medium sized wader bird, that is mainly chocolate brown on the upperparts and whitish underparts, with a white face and the back of the crown is black with white stripes running down the sides of the neck. During the breeding season, it turns the body to complete chocolate brown with white face, neck and wings. The nape is a golden yellow bordered with black and an elongated central tail feathers. Seen

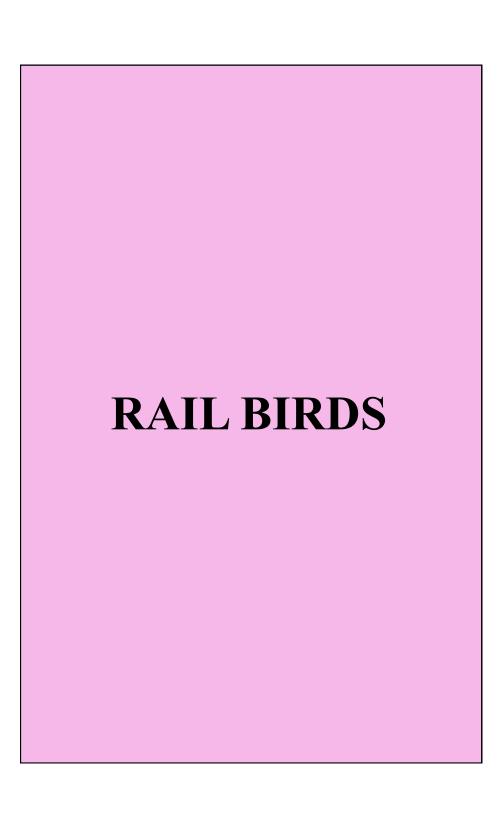


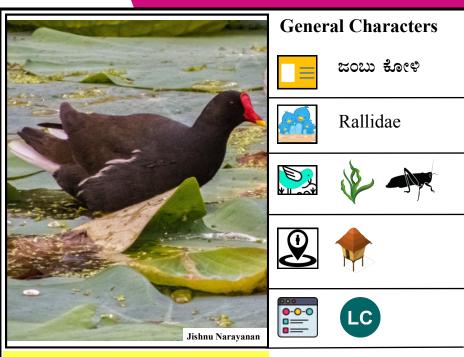


Red-wattled Lapwing Vanellus indicus

A small to medium sized wader with light brown wings and back, black on head, throat and breast. It has a white bar from near the eye separating these two colours along the under parts and tail. Named due to fleshy red wattle near the eye. Has a short tail with black tip, beak is red with black tip, yellow legs. Seen on rocks or shores as they are ground birds.

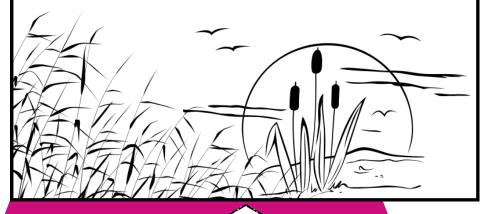


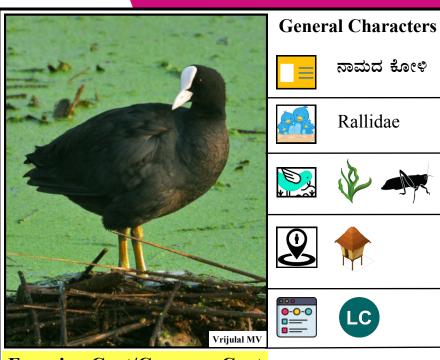




Common Moorhen Gallinula chloropus

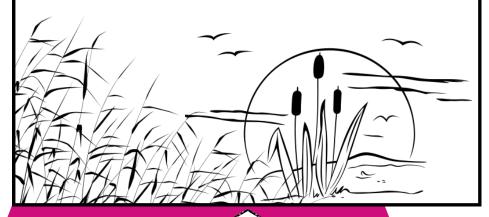
This is a medium sized marsh bird found in amidst aquatic vegetation in the lakes. It has grey-black feathers with stripes on its wings and a red bill with a yellow tip. It has long legs and toes which help to walk on the floating vegetation.

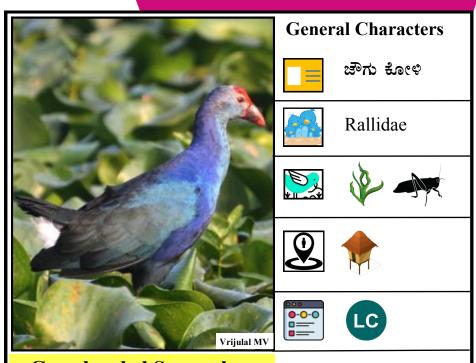




Eurasian Coot/Common Coot Fulica atra

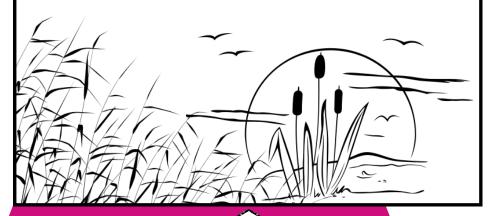
This is a large sized bird found in slow moving water bodies, ponds, and freshwater. It has large back plumage with whitish bill and forehead. The legs are stronger when compared to other rail species

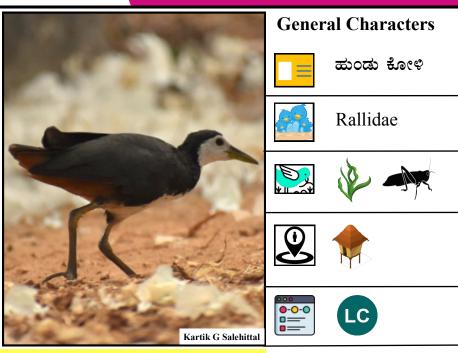




Grey-headed Swamphen Porphyrio poliocephalus

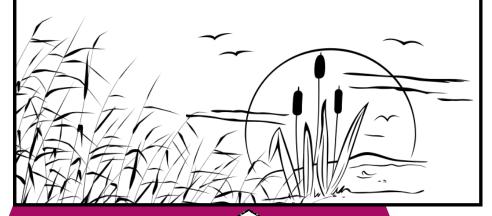
This is large sized bird usually found in lake edges and damp pastures. Their bodies are in the shades of bluish-purple with a red bill and forehead shield. It Makes short nasal grunts and croaking sounds.





White-breasted Waterhen Amaurornis phoenicurus

This is a medium sized bird commonly found in ponds, lakes and Streams. They have dark grey upperparts and flanks with a white face, breast and belly. It has long toes, short tail and a yellow bill and legs.



BIRDS OF PREY



Black Kite Milvus migrans

It is a medium-sized bird of prey which is the world's most abundant species of family Accipitridae. The outer flight feathers are black and the feathers have dark cross bars and the lower parts of the body are pale brown, becoming lighter towards the chin. The body feathers have dark shafts giving it a streaked appearance. The legs are yellow and the claws are black.





Black-winged Kite Elanus caeruleus

It is a medium sized bird of prey which is very distinctive by having long wings with white, grey and black plumage; and owl-like forward-facing eyes with red irises. In flight, the short and square tail is visible and it is not forked as Black Kite. It is common in plains and can be seen hovering like other birds of prey.

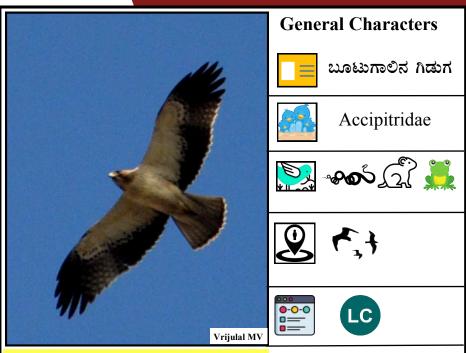




Brahminy Kite Haliastur indus

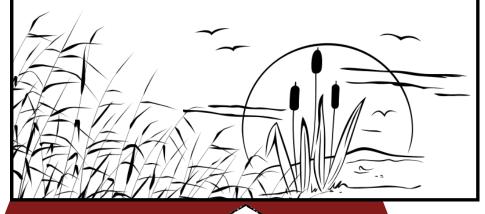
It is a medium-sized bird of prey which is found mainly on the coast and in inland wetlands, where they feed on a dead fish and other prey species. Adults have a reddish-brown body plumage contrasting with their white head and breast which make them easy to distinguish from other birds of prey.





Booted Eagle Hieraaetus pennatus

It is a medium-sized, migratory bird of prey. There are two relatively distinct plumage forms. In a pale form, they are mainly light grey with a darker head and flight feathers, whereas in the other form; they will have a mid-brown plumage with dark grey flight feathers.





General Characters



ಜೇನು ಗಿಡುಗ



Accipitridae











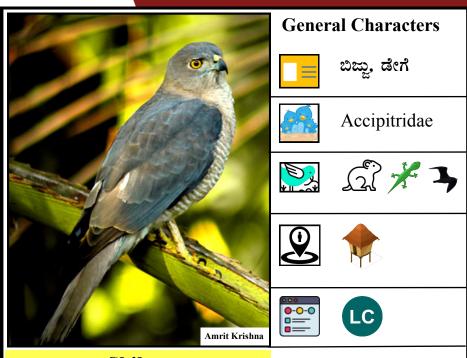




Oriental Honey Buzzard / Crested Honey Buzzard Pernis ptilorhynchus

It has a long-neck with a small head and soars on flat wings. The head lacks a strong superciliary ridge, giving it a facial appearance very unlike a raptor. It has a long tail and a short head crest.

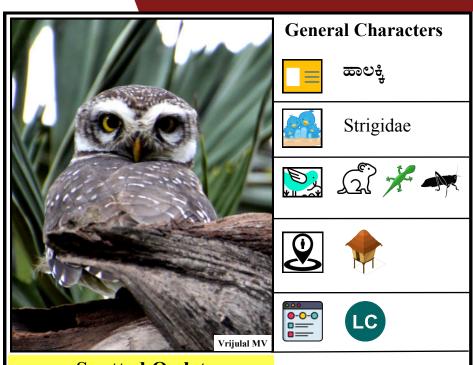




Shikra *Accipiter badius*

It is a small raptor species which has short rounded wings and a narrow and fairly long tail. Adults are whitish on the underside with fine rufous bars while the upperparts are grey. The lower belly is less barred and the thighs are whitish. The females are slightly larger than the males.



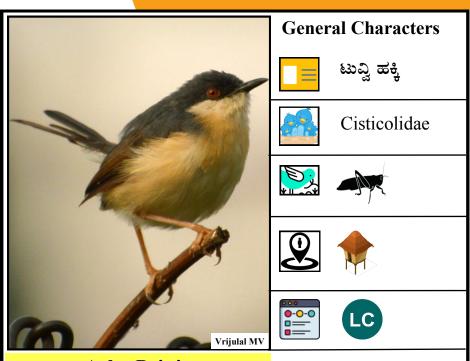


Spotted Owlet Athene brama

It is a small and stocky bird with the upperparts which is grey-brown, heavily spotted with white. The underparts are white, streaked with brown. The facial disc is pale and the iris is yellow. There is a white neckband and super cilium. Males and females are similar in appearance.



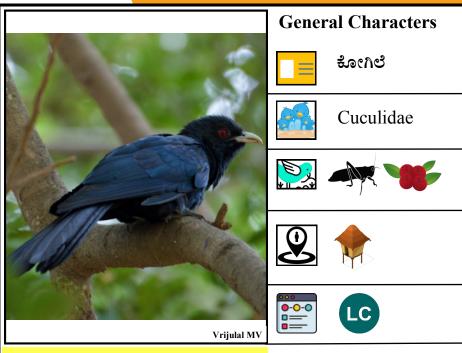
OTHER COMMON BIRDS



Ashy Prinia Prinia socialis

It is a small bird found amidst emerging aquatic plants and other bushes. Easily identifiable by its two note loud calls. It has a long tail (Usually upright). Has ashy upperparts and yellowish underparts.

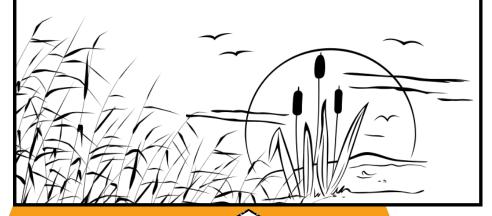


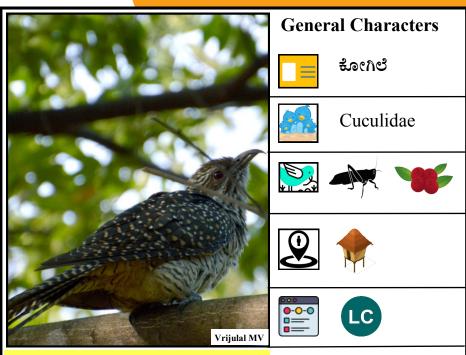


Asian Koel (Male)

Eudynamys scolopaceus

A medium sized bird slightly larger than myna, with long tail. Males are glossy black with red iris (Eye). These birds don't build nest and lay a single egg in other bird's nest (Usually Crow's)

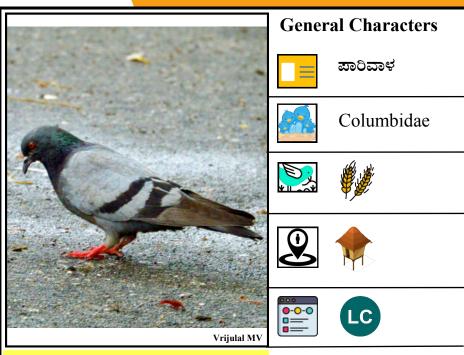




Asian Koel (Female) Eudynamys scolopaceus

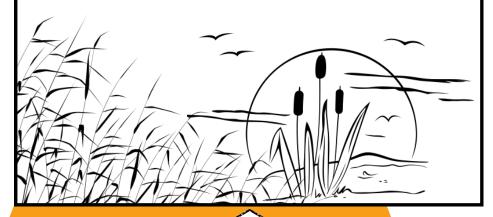
A medium sized bird slightly larger than myna, with long tail. Females are brown with white stripes and spots. These birds don't build nest and lay a single egg in other bird's nest (Usually Crow's)

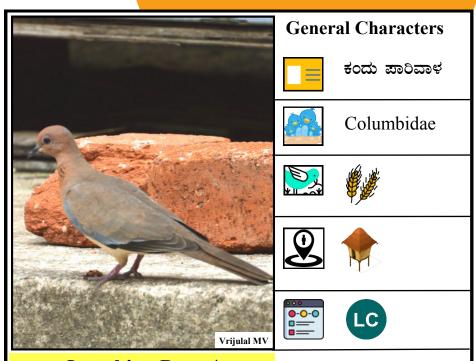




Blue Rock Pigeon Columba livia

A medium sized bird that is blue grey with black bars on wings and tail. Has yellow, green and purple iridescence across the neck. Can be seen flying over, resting on buildings or on the shores to drink water.

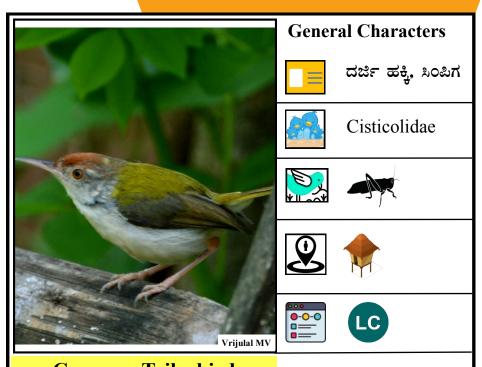




Laughing Dove / Little Brown Dove Spilopelia senegalensis

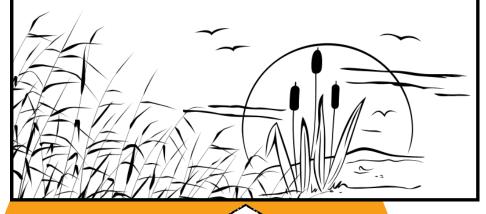
It is a medium sized pigeon like bird that is slim, with soil brown upperparts with grey wing edges. Has a pinkish head and neck, with a small patch of black and rufous checks on either side. Whitish in the ventral region with bright pink legs. Can be seen on wires or on the walking path.

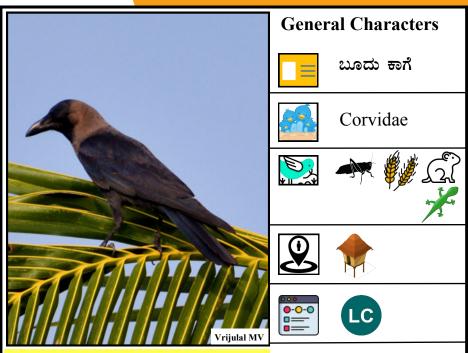




Common Tailorbird Orthotomus sutorius

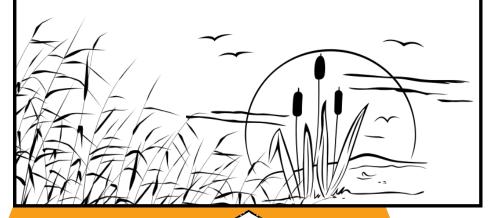
A small bird, slightly bigger than sparrow. It has greenish upper parts and whitish lower parts. Orange coloured cap and has a long upright tail. Can be seen amidst bushes and on trees where insects are available.

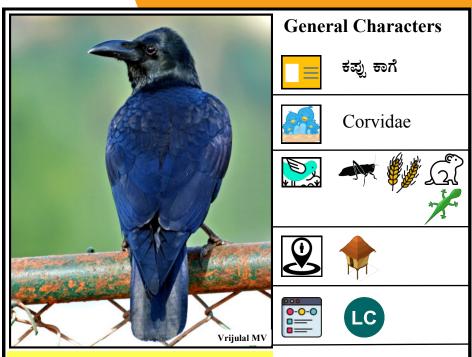




House Jungle Crow Corvus splendens

A large sized, grey colour bird with forehead, face, neck and wings in glossy black. Commonly seen on trees and buildings.

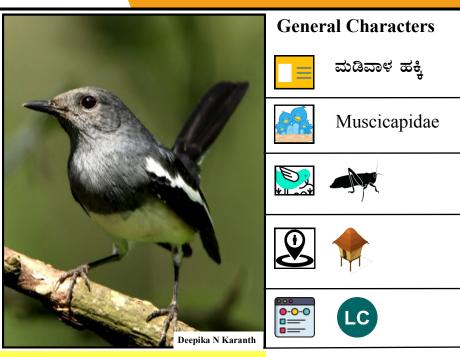




Indian Jungle Crow Corvus culminates

A large glossy black bird, with heavy black bill. Commonly seen around wooded areas around the lakes.

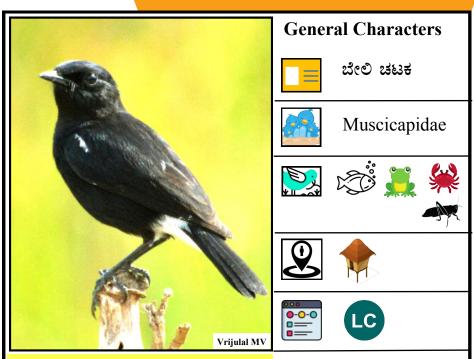




Oriental Magpie Robin Copsychs saularis

A small bird with a long upright tail. Head and upperparts are black for the males and bluish grey for the females. Has a distinctive white bar on the wing. Can be seen on trees or bushes and sometimes on the ground.

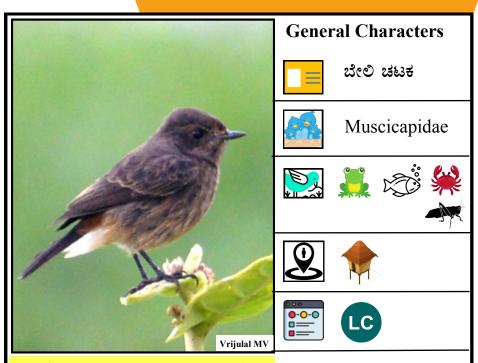




Pied Bushchat (Male) Saxicola caprata

The male is completely black but has white on the rump, lower belly and a small marking on wings. The Female is dark brown and slightly streaked with rufous rump. Can be seen on bushes and on ground.

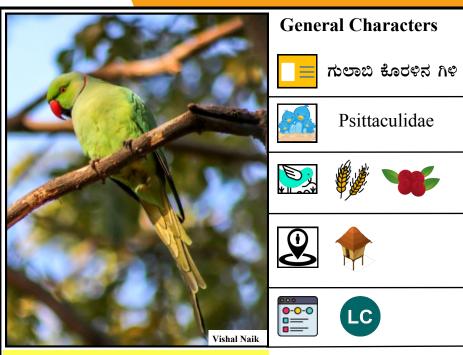




Pied Bushchat (Female) Saxicola caprata

The male is completely black but has white on the rump, lower belly and a small marking on wings. The Female is dark brown and slightly streaked with rufous rump. Can be seen on bushes and on ground.

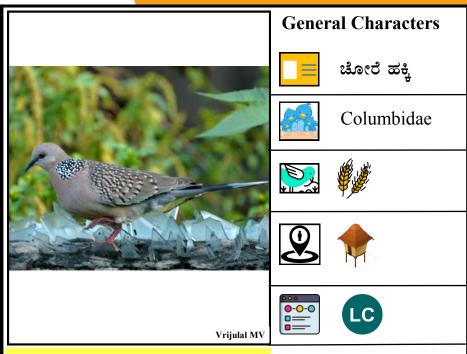




Rose-ringed Parakeet Psittacula krameri

A medium sized bird that is green in colour. Males have a red and black ring around their neck. Females and juveniles lack the ring or have a pale ring like markings. They have a long tail and bright red beak. Seen commonly on fruiting and flowering trees or flying in flocks or pairs.

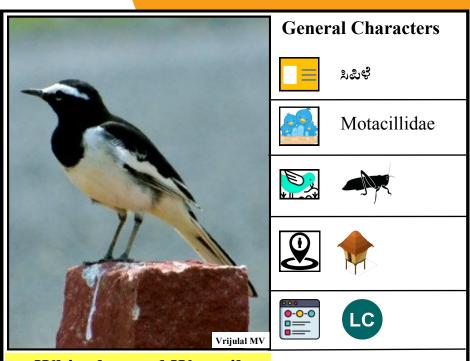




Spotted Dove Spilopelia chinensis / Streptopelia chinensis

Slightly smaller than pigeon. Grey head and belly, rosy breast, semicollars on the neck with black colour with white tips, brownish-grey back and wings with white spots, white feathers on the edges of the wings and tail which is visible during flight. Short pink legs. Seen on





White-browed Wagtail Motacilla maderaspatensis

A slender bird with black head and upper parts, white under parts, white supercilium and a single bar on the wing, long tail which it keeps wagging while foraging. Seen near water bodies and around urban gardens.



REFERENCES

- 1. **Ali, S. and Ripley, S. D.** (1968-74). Handbook of the Birds of India & Pakistan Vols. 1-10. Bombay: Oxford University Press.
- 2. **Ali. S.,** (2002). The Book of Indian Birds. 13th (Revised) Ed. Mumbai: Bombay Natural History & Oxford University Press. Pp. I-VII, 1-326+7.
- 3. **Grimmet, R., Inskipp, C. and Inskipp, T.** (1998). Birds of the Indian Subcontinent.1st Ed. London: Christopher Helm, A & C Black. Pp.1-888.
- 4. **Grimmet, R., Inskipp, C. and Inskipp, T.** (2011). Birds of the Indian Subcontinent. 2nd Ed. London: Oxford University Press & Christopher Helm. Pp.1-528.
- 5. **Grimmet, R., Inskipp, C. and Inskipp, T.** (2014). Birds of the Indian Subcontinent. (Digital Edition) Christopher Helm, London Pp.1-556.
- 6. **Grimmet, R., Inskipp, C. and Inskipp, T.** (2016 Reprinted). Birds of the Indian Subcontinent.2nd Ed. London: Oxford University Press & Christopher Helm.. Pp.1-528.
- 7. **Harish R Bhat and Pramod Subbarao**, (2006) Pakshi Prapancha: Published by Asima Prathishthana, Bangalore, India. Pp.312.
- 8. **Harish R Bhat and T.Roshmon (2013)** Bird diversity in coastal ecosystems of Karnataka, Mangroves of India: their biology and uses/ed.Bhatt J.R and et.al. Pp.295 –306. (Published by the Director, Zool. Surv. India).
- 9. **Kumar, A., Sati, J. P., Tak, P. C. and Alfred, J. R. B.** (2005). Handbook on Indian Wetland Birds and their Conservation: i-xxvi; 1- 468 (Published by the Director, Zool. Surv. India).
- K.Gouthami, Deepika NK, Anjali HR and Vrijulal MV. Birds of Shobhavana. Mudbidire: Alvs Education Foundation, 2019 Print.

Websites Referred

- Avian Report Parts of a Bird: Feather Areas https://www.avianreport.com/feather-areasbird/ accessed on 03.05.2020
- 2. **Birds and birding in India** (2005-2013) Bird Topography –Glossary http://birding.in/bird_topography.htm accessed on 03.05.2020
- 3. **Gokhale, P., and K. Kunte. 2020.** *History Of Species Pages On Birds Of India Website. In* Satose, V., V. Ramachandran, P. Roy, and K. Kunte (Chief Editors). *Birds of India*, v. 2.14. Indian Foundation for Butterflies. https://www.birdsofindia.org accessed on 03.05.2020

ABOUT AUTHORS



Vrijulal MV is a researcher at Harish R Bhat Science Foundation working on Ornithology and Ichthyology. He has completed his Environment Management course from IISc, Bengaluru. He is an avid bird researcher and also works on freshwater fishes across Southern India. He is an effective communicator on matters of bird diversity, freshwater fishes, wildlife conservation to students and public from various platforms. He has a few articles and books published on bird

identification and behaviours



Chaturved Shet R has completed his Environmental Management course from IISc, Bengaluru and currently working as a researcher at HRBSF. He is a passionate wildlife enthusiast working on Butterfly diversity of Bengaluru Urban District and few eco climatic zones in Western Ghats region of Karnataka and Goa. He loves teaching

students about butterflies and their lifecycle and has published few books and articles on butterflies. He is also a hobby wildlife photographer and enjoys birding, observing moths, spiders and odonates.



Siri HP, Programme Officer, working on state of environmental related issues at ENVIS Hub EMPRI, Bengaluru from past 4 years,. She has few articles, knowledge products, posters designed and published on various environmental issues and other aspects of biodiversity. She has also worked on State of Environment Report 2015 Karnataka and which is submitted to Ministry of Environment,

Forest & Climate Change (MoEF&CC), Govt. of India. She has successfully completed the certificate course on Valuation of Ecosystem Services and Green GDP at IISc, Bengaluru sponsored by MoEF&CC.

Shri. Raj Kishore Singh, is a 1986 batch IFS Officer, Currently he is the Director General of EMPRI, Bengaluru

Dr.KH Vinayakuamar, is a 1999 batch IFS Officer, Currently he is the Director (Research) and ENVIS Coordinator, EMPRI Bengaluru

ಗುಬ್ಬಿ ಗಳೆಯರು

ಮೊನ್ನೆ ವಿಮಾನ ನಿಲ್ದಾಣದಿ ಗುಬ್ಬಿಗಳ ನೋಡಿದಾಗ ನೆನಪು ಗಾಲಿ ಮೇಲೆ ಕುಳಿತು ಓಡಿತು ಹಳ್ಳಿಗೆ !

ಮನೆಯ ಅಂಗಳದಿ ಪಡಸಾಲೆಯಲ್ಲಿ ಹರಡಿದ್ದ ಭತ್ತದೆಡೆಗೆ
ಕುಪ್ಕುಳಿಸಿ ಕುಪ್ಪಳಿಸುತ್ತಾ
ಆಚೀಚೆ ನೋಡುತ್ತಾ
ಕೊಕ್ಕಿನಿಂದ ಹೆಕ್ಕುತ್ತಾ
ಹೆಜ್ಜೆ ಸಪ್ಪಳ ಕೇಳಿದೊಡನೆ
ಬಿದ್ದ ನೆರಳನ್ನು ನೋಡಿದೊಡನೆ
ತನ್ನ ಗೆಳೆಯ ಗೆಳತಿಯರೊಂದಿಗೆ ಪುರ್ರನೆ ಹಾರಿ
ಸೂರಿನ ಮೇಲೆ ಕುಳಿತು ತಿನ್ನುತ್ತಾ
ಚಿಲಿಪಿಲಿ ಸದ್ದು ಮಾಡುತ್ತಾ
ಮತ್ತೆ ಜರೆರ್ಂದು ಕೆಳಗೆ ಹಾರಿ ಬಂದು
ಪಾತ್ರೆ ತಟ್ಟೆ ತೊಟ್ಟಿಯಲ್ಲಿದ್ದ
ನೀರಿನಲ್ಲಿ ಸ್ನಾನ ಮಾಡುತ್ತಾ ರೆಕ್ಕೆಗಳ ಕೊಡಹುತ್ತಾ ಪಟಪಟನೆ ಬಡಿಯುತ್ತಾ

ನೀರಿನಲ್ಲಿ ಸಿನ್ನಿನ ಮಾಡುತ್ತಾ ರಕ್ಕೆಗಳ ಕೂಡಹುತ್ತಾ ಪಟಪಟನ ಬಡಿಯುತ್ತ ಭತ್ತದ ಹುಲ್ಲು ಗರಿಯ ಮತ್ತೆ ಹಾರಿ ಕೊಂಡೊಯ್ದು ಗೂಡೊಳಗೆ ಇಡುತ್ತಾ ಮೊಟ್ಟೆಗಳಿಗೆ ಕಾವು ಕೊಡುತ್ತಾ ಮರಿ ಮಾಡುತ್ತಾ

ಮನಕ್ಕೆ ಮುದ ನೀಡಿದ ಈ ಪುಟ್ಟ ಜೀವಗಳು ಎಲ್ಲಿ ಹೋದವು ?

ಹೇಳಿತು ಪುಟ್ಟ ಗುಬ್ಬಿ "ಕೇಳು ಗೆಳೆಯ "
"ಈ ನಿಮ್ಮ ಊರಲ್ಲಿ ಹೆಂಚಿನ ಮನೆಗಳೂ ಇಲ್ಲ
ಗೂಡು ಕಟ್ಟಲು ಹೆಂಚುಗಳ ಕಟ್ಟಿದ್ದ ಬಿದಿರಿನ ಗಳಗಳೂ ಇಲ್ಲ
ಒಣಗಲು ಹಾಕುತ್ತಿದ್ದ ಭತ್ತ ಕಾಳುಗಳೂ ಇಲ್ಲ!
ಮನೆಯಲ್ಲಿ ಅಂಗಳವೂ ಇಲ್ಲ!

ಚಿಟ್ಟೆಗಳು ಇಲ್ಲ ಚಿಟ್ಟೆಗಳ ಕಂಬಳಿ ಹುಳುಗಳೂ ಇಲ್ಲ!
ಈ ಎಲ್ಲ ಇಲ್ಲಗಳ ನಡುವೆ ಹೇಗಿದ್ದಾವು ನಮ್ಮ ಪುಟ್ಟ ಕಂದಗಳು ?
ಕೀಟಗಳ ಓಡಿಸಲು ನೀವು ಹಾಕಿದ ಕೀಟನಾಶಕ
ತಿಂದ ಕಂಬಳಿ ಹುಳುಗಳ ಹೊಟ್ಟೆ
ಆ ಕಾಳುಗಳ ಕಂಬಳಿ ಹುಳುಗಳ
ತಿಂದ ನಮ್ಮ ದೇಹಕ್ಕೂ
ಸೇರಿತು!
ಅದೇ ಈಗ ನಮ್ಮ ಸಂತತಿಯ
ಕೊನೆಗಾಣಿಸಿದೆ!
ಮಣ್ಣೆಲ್ಲಾ ಮುಚ್ಚಿದ ನಿಮ್ಮ ಕಾಂಕ್ರೀಟು
ಮಾಯವಾದ ಕೆರೆಗಳು
ಸುತ್ತುವರಿದ ಮೊಬೈಲ್
ಟವರ್ಗಳು
ನಮ್ಮ ನೆಲೆಯ ಭಿದ್ರಗೊಳಿಸಿವೆ

ಹೇಳು ಗೆಳೆಯ ಬದುಕುವುದಾದರೂ ಹೇಗೆ ? ಏನಾದರೂ ಮಾಡು ನಾವೂ ನಿಮ್ಮೊಂದಿಗೆ ಬದುಕಲು!

– ಡಾ. ಕೆಎಚ್ ವಿನಯಕುಮಾರ್







Published By:

Environmental Information System (ENVIS)

Environmental Management and Policy Research Institute (EMPRI)

"Hasiru Bhavana" JP Nagar 5th Phase Bangalore: 560078, Website: www.karenvis.nic.in

