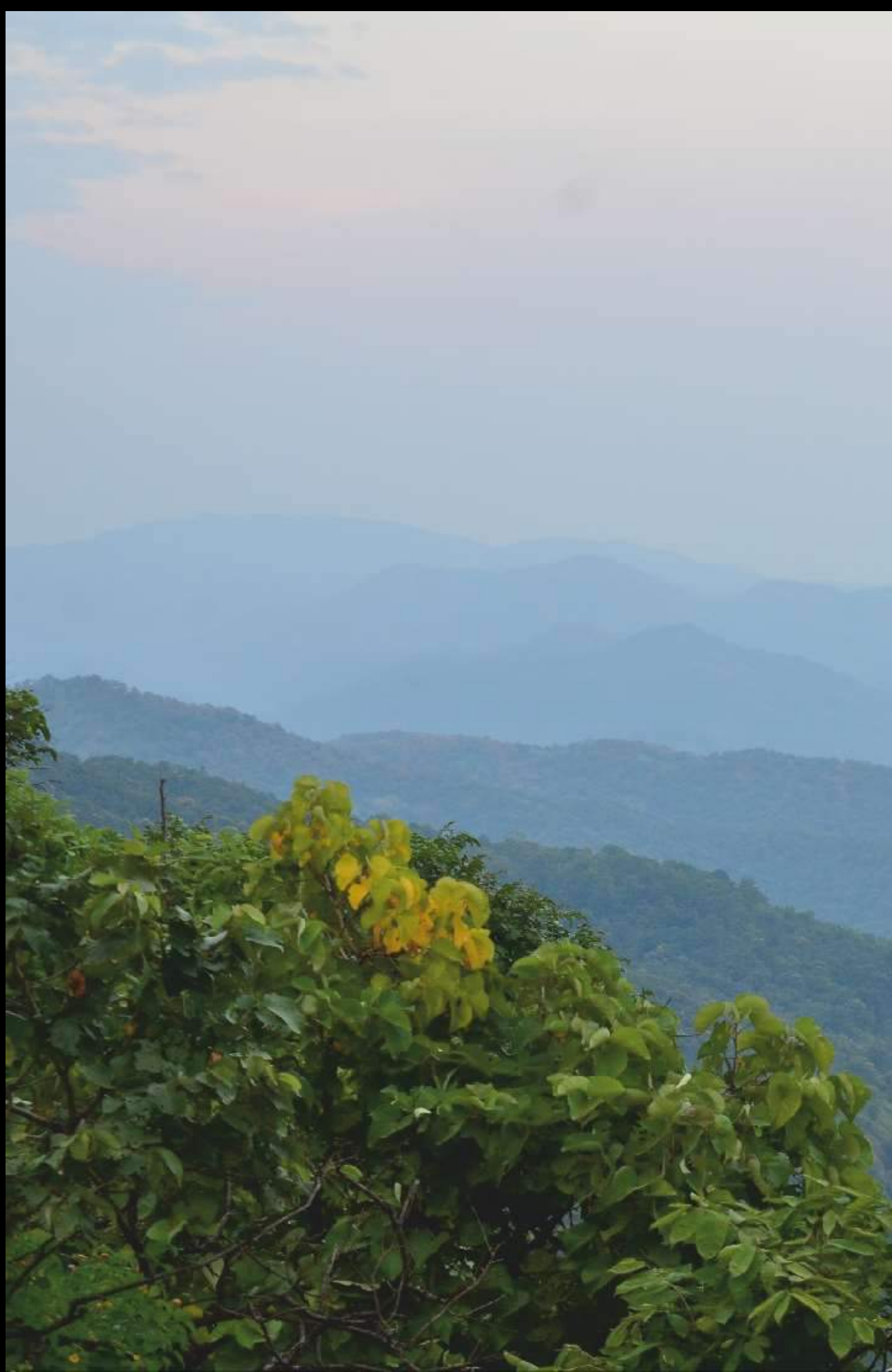


Handbook of *Melghat*

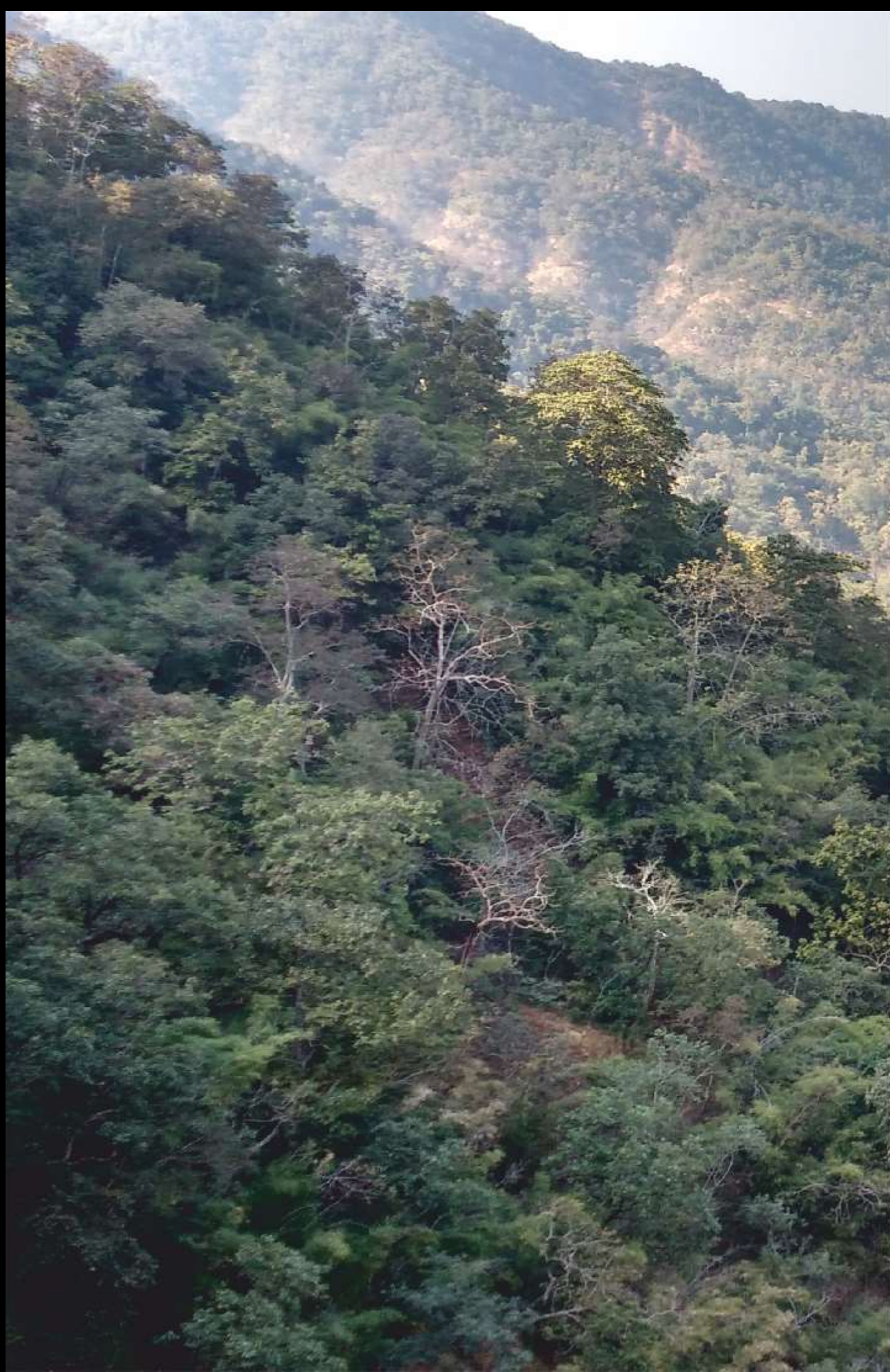
A Pictorial Field Guide for
Wildlife Enthusiasts, Field Staff and Naturalists







Satpuda Hill Ranges of Melghat





This book belongs to...

*With Best Wishes
from
Melghat Tiger Reserve*

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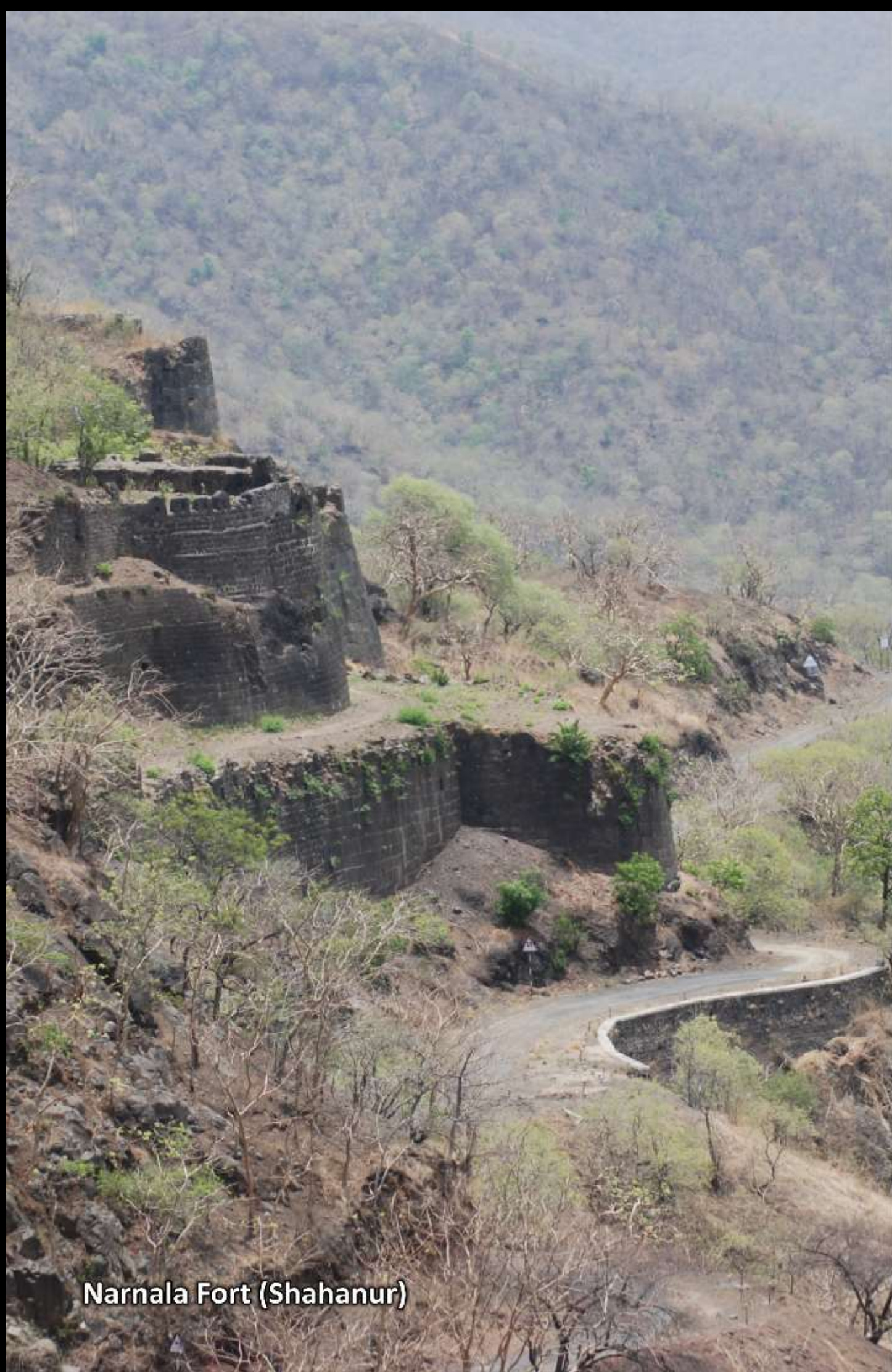
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Handbook of *Melghat*



—◆—
A Pictorial Field Guide for
Wildlife Enthusiasts, Field Staff and Naturalists
—◆—



Narnala Fort (Shahanur)



Government of Maharashtra



Message

I feel blessed and fortunate as I pen down a message for the readers of this wonderful piece of pictorial documentation- 'Handbook of Melghat'. Blessed because I live in a country which has a beautiful diversity of flora and fauna which is the source of life not only for other species but most importantly for us humans. Fortunate because in my capacity as the Forest Minister of a great state like Maharashtra I can play an important role to conserve this heritage which is present in the form of forests, animals, birds, insects and reptiles.

'The Father of the Nation' once said that the greatness of the nation can be judged by the way its animals are treated. It is our fundamental duty to preserve these forms of life on Earth and a handbook like this is a primary but a very important step towards achieving a greater goal of conservation. The contents of this handbook are well researched, documented and presented. I am sure it will capture the interest of all nature lovers around the world. Moreover, this handbook is unique in the fact that for the first-time forest dwelling tribes are given an exposure so that the outside world realises the value of co-existence between the animals and the humans who live around the forests.

I congratulate team Melghat for being a pioneer in this form of documentation and Maharashtra will surely benefit by such efforts when it comes to taking giant leaps in nature and biodiversity conservation. I wish more and more path breaking innovations are brought to the fore by the management of Melghat.

All the best.

Sudhir Mungantiwar
Minister (Finance and Planning, Forest)
Maharashtra State, India



Sipna River (Semadoh)



Government of Maharashtra



Foreword

"A lifetime can be spent in a Magellanic voyage around the trunk of a single tree."

E. O. Wilson

Such are the mysteries of nature and the volume of the bio-diversity which the nature has to offer that it is next to impossible for a single person to explore them in its entirety. Melghat is a blessing of mother nature. It is a bio-diversity hotspot of Central India. Nestled in the lower ridges of the Satpuda hills, it is a home for hundreds of species of mammals, birds, reptiles, insects which have been coexisting with human since ages. The denizens of Melghat are not only numerous but also unique as many of them are found only in these forests. Melghat offers a well-protected and favourable habitat for all such species.

My team has made a tremendous effort to identify, document and present most of these marvels of nature found in Melghat. This handbook is made to suit the eyes of the beholder in such a way that a love and interest is created in the readers mind and the explorer in him is awakened. It provides a pictorial representation of most species and also at the same time gives some basic information to satiate your grey matter.

Such documentation are very helpful not only for the tourists, guides and naturalists but also for the management of a wildlife sanctuary and a tiger reserve. It does serve when management decisions are made to preserve the flora and fauna of the region. In fact, such a handbook will definitely serve as a benchmark for other parks to document their bio-diversity.

I wish to thank and congratulate my team especially Mr. Tushar Pawar for completing this herculean task very efficiently and in quick time and I also urge each reader to share the knowledge gained from this handbook with others so that we have more and more people falling in love with the beauties of nature.

M. S. Reddy (IFS)

Chief Conservator of Forest & Field Director
Melghat Tiger Reserve, Maharashtra, India



Sunset view at Chourakund

Preface

As a young wildlife enthusiast, I have always fascinated being in the wilderness for longer duration of times and study the nature. The experience becomes even richer whenever there is an understanding of the species be it mammals, birds, insects, etc. around me. It has always helped me connect with the nature even better. The urge to gain more knowledge about these creatures which we see around us every time makes me realise that how important it is to carry field guides and handbooks to be engrossed into the understanding of the world around us.

When I got the opportunity to make 'Handbook of Melghat' given by Mr. M. Srinivasa Reddy (IFS)- Chief Conservator of Forests and Field Director of Melghat Tiger Reserve, I was overjoyed. My dream as a wildlife enthusiast could now be materialised as I had the opportunity to compile the knowledge of most species in the wilderness in Melghat. As I started compiling this handbook, I realised that it would be a mammoth task as there were hundreds and thousands of species of all types out there in the wild. Nevertheless, the challenge was worth accepting and the task was worth plunging into as it would definitely add to the knowledge of all involved i.e. the reader and the compiler that's me.

Melghat is a huge forest in terms of area. Its vastness not only adds to the intrigues of the wilderness but also opens up many avenues to the researchers and naturalists. To a wildlife and nature lover, Melghat is a paradise. It is history mingled with the mysteries of nature. It has unique species which may be found only in few other places. Added to the above factors, the geography of Melghat landscape creates new fascinations for the visitor. At times it seems impossible to understand this huge landscape in a small time. Hence this handbook is an effort to assimilate all such intricacies in a pictorial form with basic information. This will act as a guide for the young enthusiast as well as the experienced wildlifer.

This handbook encapsulates pictorial and some basic information about nearly 32 species of mammals, 314 species of birds, 34 species of snakes and reptiles, nearly 132 species of butterflies, nearly 50 species of odonates and over 50 species of spiders. During the compilation I realised that Melghat is not only about these species. It is much more.

The forests of Melghat Tiger Reserve also have history hidden in it. These jungles are witness to lot of power changes over the centuries



A Tribal Good Luck Charm

dating back to over 1000 years. The fort of Narnala near Shahnur is one of the oldest forts of Vidarbha and an important symbol of domination for the whole of central Indian region. The Gavilgad fort near Chikhaldara has seen action in the early 19th century and both these forts are important and interesting landmarks of Melghat. The forests and the wildlife now rule these forts. This handbook contains important information about these forts.

Melghat has some fascinating culture and festivals. The traditions and deities are unique and seldom found anywhere else in the country. Whenever anyone visits Melghat he or she will definitely come in contact with these beautiful denizens and their way of lifestyle will always raise questions in the inquisitive mind. Therefore, it was felt necessary to mention about them in the handbook. This Handbook therefore has a section dedicated to the tribes of Melghat and their traditions, festivals and other features.

Melghat is famous for its rest houses. Many of them are over hundred years old built during the British era. Many such rest houses are beyond the reach of normal tourists as they are in the core areas of Melghat Tiger Reserve. We have tried to get photographs and basic information about these rest houses in this handbook for the tourists. Melghat as a tourism destination is fast capturing the eye of the world. It was also felt that there is a need to inform about the various tourist destinations spread all over Melghat. This will help any wildlife and nature lover to find it easy to visit Melghat with his loved ones.

The compilation of data from various sources would not have been possible without the active support of my colleagues in the Melghat Tiger Reserve Conservation Foundation. The handbook is a compilation of works which has taken decades of research by experts in the field and in difficult conditions. I would like to thank each of them for allowing some portions of their work to be reproduced here in this handbook.

I am sure this handbook will be a very important piece of documentation and field guide which will benefit most tourists and visitors to Melghat. I sincerely hope that I have been able to do justice to the work entrusted upon me by my seniors. In the end I would like to say one thing. Come to Melghat. Come home to nature.

Tushar Pawar
Wildlife Biologist,
Melghat Tiger Conservation Foundation
Melghat Tiger Reserve, Amravati, Maharashtra



Misty Morning at Chikhaldara

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Claw marks of Sloth Bear on Arjun tree made while climbing to eat honey at Jarida

English Name

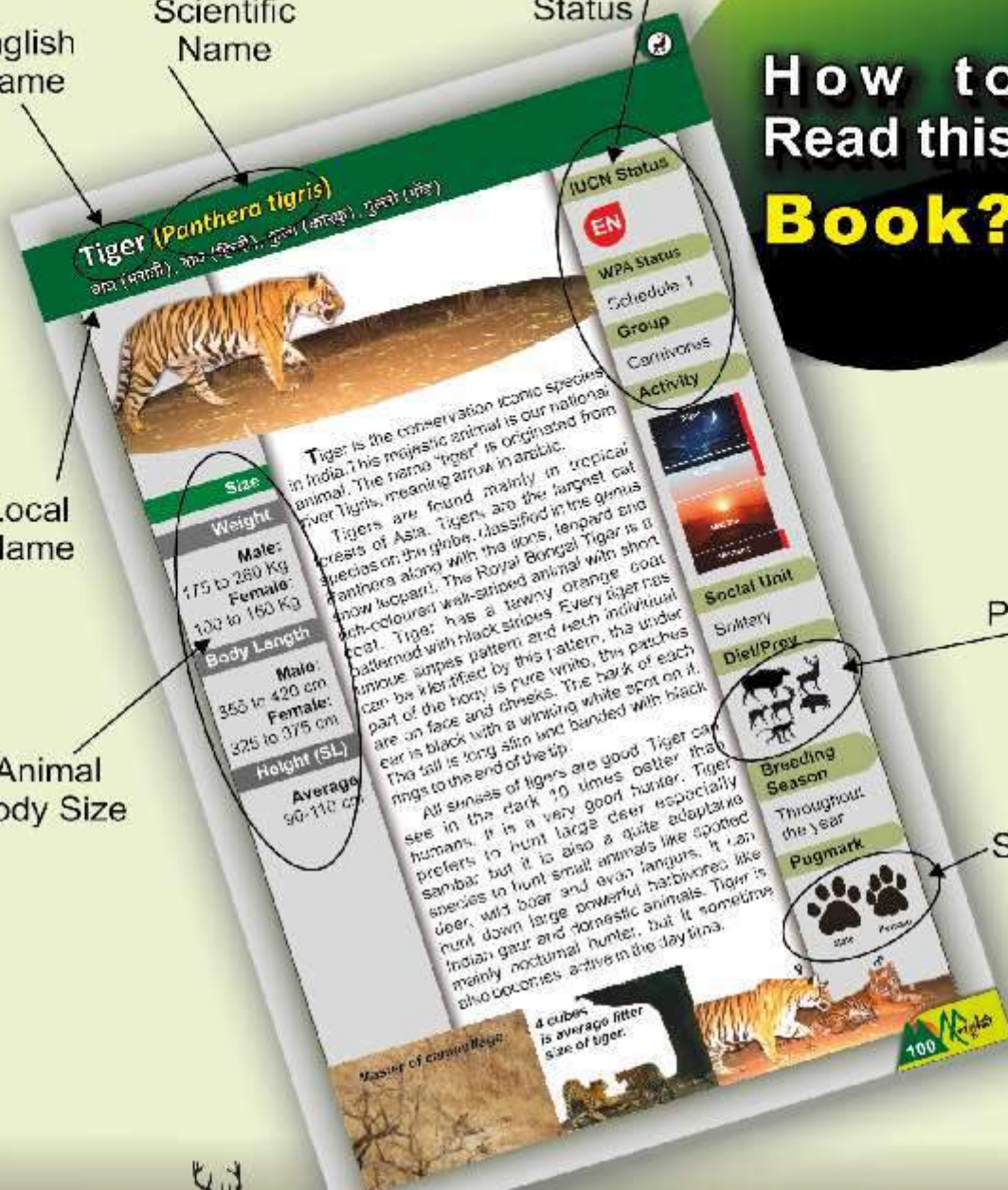
Scientific Name

Conservation Status

How to Read this Book?

Local Name

Animal Body Size



Prey

Sign



Abbreviations

MTR	:	Melghat Tiger Reserve
WL Dn	:	Wildlife Division
WLS	:	Wildlife Sanctuary
IUCN	:	International Union for Conservation of Nature and Natural Resources
WPA	:	Wildlife Protection Act (1972)
HL	:	Height at Shoulder Level
cm	:	Centimeter
kg	:	Kilogrammes
Ha	:	Hectare
m	:	Meter
MSL	:	Mean Sea Level
SNC	:	Sanctuary
NP	:	National Park
WCC	:	Wildlife Crime Cell
°C	:	Degree Celsius
NIC	:	Nature Interpretation Centre
Hq	:	Head quarter

Activity Meter

Nocturnal

Active at Dusk

Diurnal

Active at Dawn

Night

Evening

Mid Day

Morning

Habitat Meter

Human Settlement

Crop Field

Wet Land

Grass Land

Shrubs

Forest

Status: Birds

- R** Widespread Resident
- W** Widespread Winter Resident
- V** Vagrant or Irregular Visitor
- ?** Required Status Information
- PV** Passage Visitor
- H** Historical Record From MTR Checklist
- RM** Resident Migrant
- BM** Breeding Migrant

Status: Butterfly

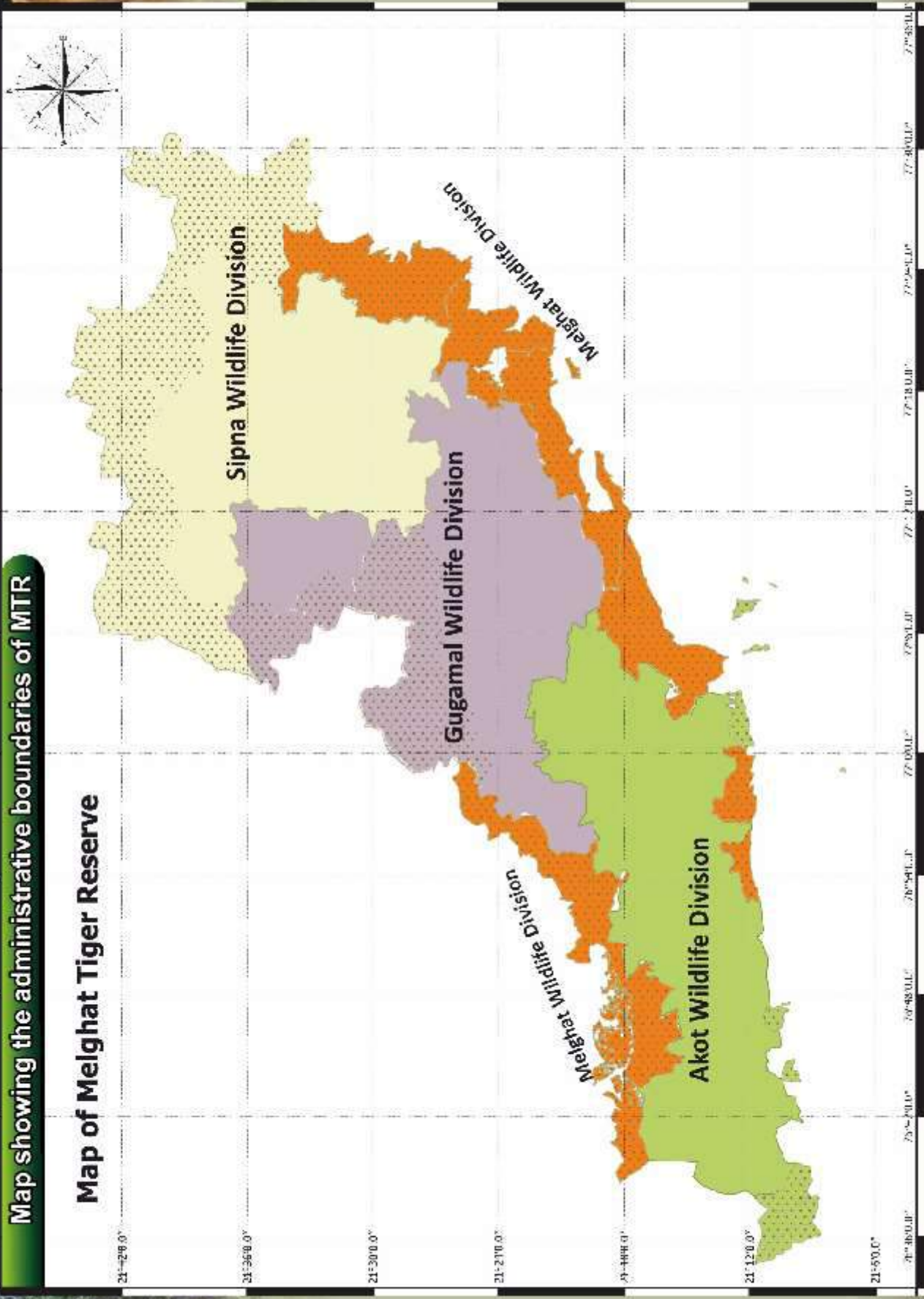
- VC** Very Common
- C** Common
- NR** Not Rare
- R** Rare
- VR** Very Rare
- LC** Locally Common

IUCN Status

- LC** Least Concern
- NR** Near Threatened
- EX** Extinct
- VU** Vulnerable
- EN** Endangered
- CR** Critically Endangered
- EW** Extinct From Wild

Map showing the administrative boundaries of MTR

Map of Melghat Tiger Reserve



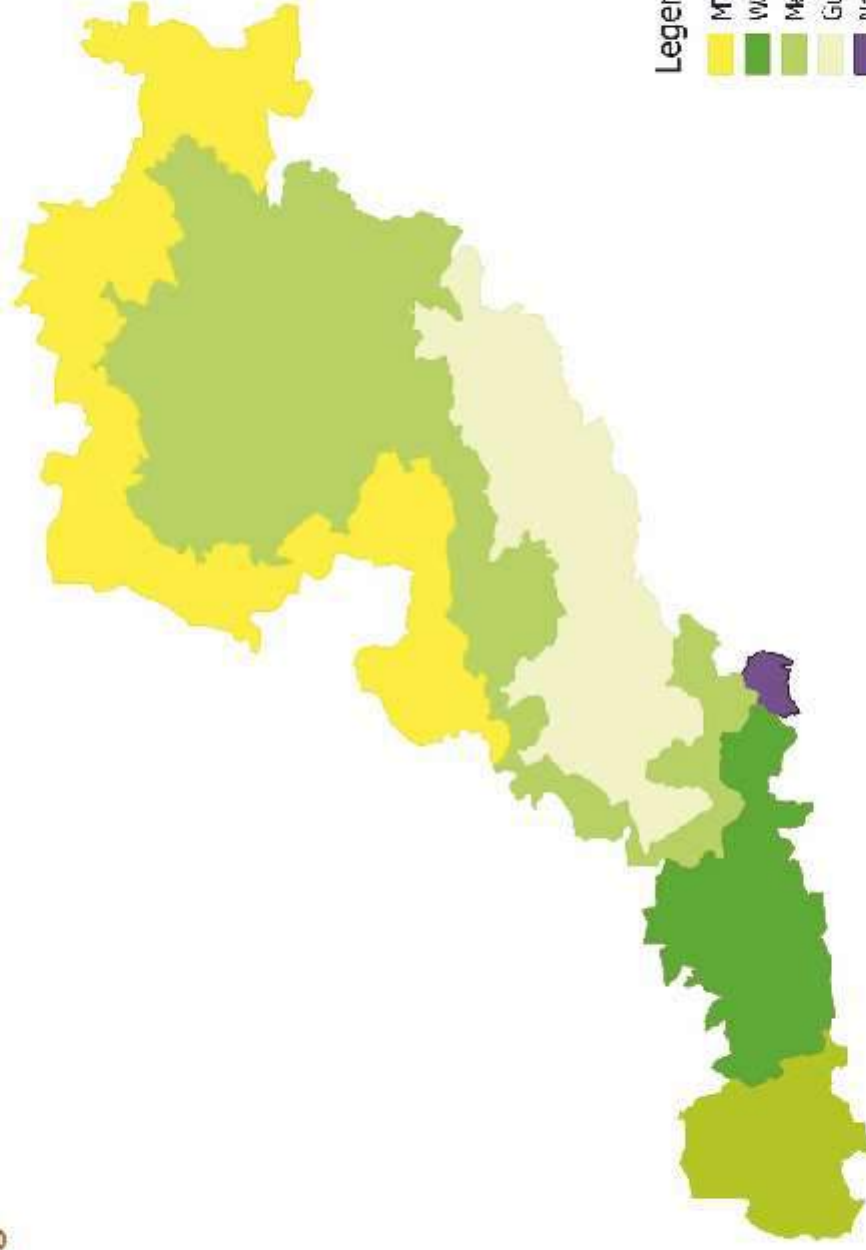


Introduction of Melghat

Melghat Tiger Reserve is situated in the Satpuda hill ranges of central India. The forests of Melghat spreads over the Western Vidarbha districts of Amravati, Akola and Buldhana; bordering with Madhya Pradesh. The geographical expansion of Melghat is:
Latitude : $21^{\circ} 07' N$ and $21^{\circ} 45' N$
Longitude : $76^{\circ} 37' E$ and $77^{\circ} 31' E$
Altitude : 312 M to 1178 M above MSL.

The Melghat Tiger Reserve, owing to its unique flora and fauna occurrence and rich bio-diversity, has a very significant place in the conservation history of the state of Maharashtra. The area is well known for its unique topographical diversity, as it is dotted by several high hills and deep valleys. The area of the reserve is a typical representative of central Indian highlands forming a part of the **Bio-geographic zone 6E-Deccan Peninsula-Central Highlands** (Roders and Panwar 1988). The name Melghat itself signifies meeting of ghats and the reserve is located in a setting of rugged hills, steep cliffs and deep gorges. The highest ridge lies on the southern flank of the reserve. Average height ranges from 381 meters to 912 meters above mean sea level. These hills and valleys have constant abrupt variations in aspect and gradient.

Map showing PA boundaries of MTR



Legend

- MTR_Buffer
- Wan SNC
- Melghat SNC
- Gugamal NP
- Narnala WL
- Ambabarwa WL



(C) Map is generated by WCC, Melghat Tiger Reserve, Amravati

Administration of Melghat Tiger Reserve

Melghat Tiger Reserve lies in forests of Amravati, Akola and Buldhana Districts of Vidarbha region of Maharashtra. The area of the Critical Tiger Habitat / core area is 1500.49 sq.km. falling in the heart of the Melghat Tiger Reserve. Out of this, 1150.03 sq.km. (Gugamal and Melghat Sanctuary) belongs to the initially declared Melghat Tiger Reserve on 22nd February 1974. The remaining area of three wildlife sanctuaries namely Wan, Ambabarwa and Narnala were added to it on 27th December 2007 and now comprise the core area forming the Critical Tiger Habitat of the Melghat Tiger Reserve.

The whole area is divided into four wildlife divisions for administrative purpose viz. Sipna Wildlife Division, Melghat Wildlife Division with headquarters at Paratwada, Gugamal Wildlife Division headquarters at Chikhaldara and Akot Wildlife Division with headquarter at Akot.

Division	Range	Hq.	Forest area	Non Forest area	Total (ha.)
Sipna Wildlife Division	Semadoh	Semadoh	19071.63	470.67	19542.30
	Raipur	Raipur	15989.31	383.59	16372.90
	Hatru	Hatru	15183.62	1373.98	16557.60
	Chaurakund	Chaurakund	14908.79	361.21	15270.00
	Jarida	Jarida	14191.63	1975.27	16166.90
Sipna Wildlife Division			79344.98	4564.72	83909.70
Gugamal Wildlife Division	Harisal	Harisal	12010.43	663.57	12674.00
	Tarubanda	Tarubanda	9656.74	1256.66	10913.40
	Dhakna	Dhakna	16929.93	659.16	17589.09
	Chikhaldara	Chikhaldara	22526.85	291.45	22818.30
Gugamal Wildlife Division			61123.95	2870.84	63994.79
Akot Wildlife Division	Dhargad	Dhargad	19682.64	272.36	19955.00
	Sonala	Sonala	15839.75	6148.92	21988.67
	Narnala	Narnala	2180.37	15969.48	18149.85
	Wan	Wan	11647.28	181.32	11828.60
	Somthana	Shivpur	8938.91	333.19	9272.10
Akot Wildlife Division			58288.95	22903.27	81192.22
Melghat Wildlife Division	Akot	Khongda	9042.50	44.70	9087.20
	Dhulghat	Dhulghat	13004.12	2292.76	15296.88
	Gavilgadh	Chikhaldara	3741.24	1744.88	5486.12
	Ghatang	Ghatang	7844.17	388.74	8232.91
	Jamali	Jamali	5923.44	2674.36	8597.80
Melghat Wildlife Division			39555.47	7145.44	46700.91

Detailed Map of Melghat Tiger Reserve



TIME LINE

Management interventions and landmarks in the history of Melghat Tiger Reserve

22 Feb 1973

Establishment of Melghat Tiger Reserve

1974

First management plan for the Tiger Reserve Area (1571.74 Km.) under the Project Tiger was prepared by Sheikh and Sawarkar for the period 1973-1978

1985

Declaration of Melghat Sanctuary

1987

The commercial harvesting of timber was stopped

1987

Declaration of Gugamal National Park

1988

Second management plan was prepared by Shri. M.G.Gogate for the period 1988-1998

1988

Nature interpretation center was established at Semadoh

1991

Zoological Survey of India surveyed Melghat

1992

The collection of Tendu leaves was stopped

1994

Declaration of Multiple Use Area

1995

Shri. P.J. Thosare prepared a plan for Multiple Use Area for the period 1995-2004

1997

Declaration of Wan, Ambabarwa and Narnala Sanctuary

1999

Entire area of the Reserve including Ambabarwa and Narnala WLS with three divisions namely Sipna Wildlife Division, Gugamal Wildlife Division and Akot Wildlife Division were put under the Project Tiger Directorate, by the Govt. of Maharashtra order dated 26th April 1999 for unified control

2000

Subsequently changes in the area of Melghat Sanctuary, Gugamal National park and Multiple Use Area, government issued a final notification declaring the area of National Park and Melghat Sanctuary.

2001-03

Bori, Koha and Kund villages from Melghat Sanctuary were rehabilitated at Rajura in Akot tehsil of Akola district.

2002

Management plan for the period 2004-05 to 2013-14 sanctioned by PCCF of forest (Wildlife) Maharashtra State.

2007

Declaration of Critical Tiger Habitat in Melghat Tiger Reserve of 1500.49 sq. km.

2009

Registration of "Melghat Tiger Reserve Conservation Foundation"

2010

Notification of Buffer Zone (Area 1268.03 sq. km)

2013

Establishment of Wildlife Crime Cell

2011-18

Further rehabilitation of villages: Nagartas, Amona, Barukheda, Vairat, Churni, Dhargad, Gullharghat, Somthana (Br), Somthana (Khd), Kelpani, Chumkhedi, Ambabarwa, Rohinkhidki, Talai, Dolar and Pastalai

2017

Initiation of smart patrolling protocol MSTripes.

2017

Initiation of livelihood programme for tribal youth and women

2018

Administration of Melghat buffer came under Field Director; Unified Control



Dancing Korkus

People and Culture





Bidiwale Baba near the Rajdev Baba Camp



Tribes of Melghat

Melghat is predominantly inhabited by Korku, Gond, Nihal and Balai are other lesser inhabited tribes. A socially developed grazer group of Gawali caste are also migrants of these regions.

Korku, Gond and Nihal:

Traditionally, Korkus had been drawing their sustenance mainly by engaging themselves in forest produce harvesting works for a period of almost one century. They had provided labour force for all the forest conservation and development works. They had acquired skills required for harvesting forest products and were used to be employed earlier for processing of forest produce to market. Agriculture used to be a supplementary activity for them. After 1973, the villagers acquired permanent rights on the land in their villages and have been since pursuing agriculture practices. Their land holdings are limited and majority of them hold hardly 5 acres or so per family.

Needs of Korku's and Gond's for the forest produce for bonafide use have been recognised and thus concession to collect the same from the forest areas are being honoured. Forest dwelling people do indulge occasionally in trapping of jungle fowls, peacocks and they occasionally indulge in even killing of herbivore like chitals and sambars through dogs, traps and poisoning of waterholes. Fishing, legal or illegal is one of their main passions.

As compared to Korkus, Gonds are less compatible with forest ecosystem as they do indulge on a higher scale in poaching. Gonds from bordering Madhya Pradesh even resort to killing of Gaurs. Nihals are akin to Korkus, but are known to eat meat of dead animals found inside the forests. They are placed at a lower rank in the social hierarchy.

The untold story of Korkus

Melghat - Meeting of Ghats. Geographically it is hilly rough terrain covered with lush green grass and pristine dry deciduous forest, dominated by teak with few massive trees of Ain, Sajad, Salai, Karaya tree, Mahua and many Ficus species. Make no mistake, Melghat is not just another central Indian jungle but a unique 'melting pot' which has embraced the jungle and its people since ages. Melghat is never just about tigers and leopards, it can never be, historic sites such as Narnala and Gavilgadh fort proves that the wildlife and people go hand-in-hand here.

Melghat and its extended parts in neighbouring Madhya Pradesh are dotted with forest dwelling communities like Korku, Gond and Balai, wherein Kokru tribe is the largest of all.

Korku simply means 'Human'. There are numerous legendary stories on how the name originated, the intriguing of them is this one; Korku tribe is a fragmented section of Santhali community from Chota Nagpur, Bihar. Decades ago during British era, British brought them to Melghat for logging and plantation labour work. When local communities (mainly Gonds) curiously asked these freshly migrated men about their identity, a migrant replied, "Korku" which just meant "humans like you" in Santhali (Koru means human and a group of people meant Korku). As fate would have it a simple introduction as a human was labelled as their tribe's name by locals.



Korku Woman working in a paddy field

Mythology behind Korku origin

Korku community are closely associated with the nature. They worship nature, river and animals. There are lots of myth about their origin, but one story is pretty common in their folk history.

Once upon a time, before the arrival of humans on Earth, when the Earth was covered with thick forest all around and wild animals ruled the land, one cold winter evening lord Shiva was passing over the Dandakaranya (forest of central India). He was totally amazed by the beauty of nature but thought that without human this nature was incomplete. He arrived at Kailash Parbat in haste and ordered Kageshwar (a Crow) to bring some soil from the sea of southern coast. Kageshwar started his journey and after a long travel, he finally reached the southern coast of India. Kageshwar was tired after such a long journey and his feathers were almost shredded. What disappointed him more than anything was that the coast was completely covered with sand. After a long search around the coast, suddenly he sighted a termite mount. He went to the mount and requested the queen of termites to give him some soil for lord Shiva. The queen refused his demands without a second thought naturally as it was her house. But Kageshwar kept requesting the queen for soil and finally she pitied his state and agreed to give some soil, but with a condition. She said that she would give the soil but Kageshwar would have to return it back in any form. Kageshwar readily agreed and flew away with the soil.



Lord Shiva temple at Makhala village

On the return journey he reached central India where Lord Shiva met him at Melghat. Lord Shiva was happy that finally he had got what he wanted and now he could introduce humans to this beautiful world. Lord Shiva made two statues with the soil, one male, one female and kept it outside for baking. Co-incidentally lord Indra, who was flying above Melghat, saw the human statues. Lord Indra misjudged the situation and thought lord Shiva was creating competitors against him. He ordered his horses to turn both the statues into dust. Lord Shiva came back only to see his work destroyed by someone. Clueless about what had happened, he made it again. Next day Lord Indra's horses came and destroyed the statues for a second time. This kept repeating for a long time. Finally Lord Shiva lost his patience and decided to stop this with a brilliant idea. He took some soil and this time created two statues of dogs. When the statues dried, he magically turned those statues into live dogs. Lord Shiva again created two male and female statues and ordered the dogs to protect it.

This time when Lord Indra's horses came to destroy Lord Shiva's work, they were forced to run away by the lethal dogs guarding the statues. This time Lord Shiva was successful in drying the statues well. He turned them alive with his magical powers. Lord Shiva named his creation Mula (male) and Mulai (female).



Mula and Mulai started their life with the blessings of Lord Shiva and were living happily in the forests of Melghat. Over the period of time Mulai was blessed with 36 children. After few years their children matured, Mula-Mulai knew they had to marry their children for the welfare of human race. But the question was whom would they marry if there was no other human than their own family members on Earth? Mula-Mulai went to Lord Shiva and shared their concern with him. Lord Shiva listened carefully and promised them that he would resolve their problem soon.

Few days later in the dark of the night when the family of Mula-Mulai were in deep sleep, Lord Shiva embraced a body of a tiger and silently went to the family's hut in the forest. He roared aloud at the hut and pretended as if he was going to attack the family. The entire family was draped in fear & they started running helter-skelter. Each member found some safe place to save themselves from the mighty tiger. After sometime Lord Shiva turned back to his original character and called them. When all the members came out and gathered around Lord Shiva, he asked everyone, "which place did you chose to hide?" Someone said he had hid on a Jamun tree, someone replied he dipped himself in water. Based on their replies Lord Shiva created '36 gotras' that day. Siblings who hid on Jamun tree were named Jamunkar, so on and so forth. Lord Shiva's motive behind creating these gotras was that they should be able to marry and continue their progeny. Only condition was that no one was allowed to marry a member of his own gotra.

Today in Melghat, around 12-20 Gotras exists. Few of them are briefed below;

Example:

Surname	Meaning
Kasdekar	Kasda means Earth
Jamunkar	Jamun, name of tree
Dhikar	Small Fish
Chimote	Chilati, name of tree
Selukar	Selu, name of tree
Semalkar	Semal, name of tree

Numbers in **Korku** Language

One- Myaa	1	2	Two Bari
Three Afai	3	4	Four Uphoon
Five Mono	5	6	Six Turiya
Seven Yeyiyya	7	8	Eight Elaara
Nine Aaryaa	9	10	Ten Geljiyaa
Hundred Myaa Saddi	100	200	Two Hundred Bari Saddi



Wild Tomato (Locally known as *Zirimiri*)



Girls from Korku village celebrating Dolar Parv

Tradition and Festivals :

As per Korku tradition their calendar begins from pre-monsoon season and they start celebrating festivals from this season. On the arrival of rainy season they celebrate 'Bhawai pooja' to praise Meghnath – The God of rain. According to their belief, this ensures good rain and healthy crops.

There are 3 types of Bhawai pooja celebrated by Korkus,

1) **Rando Bhawai :**

This pooja celebrates and praises the God before rains.

2) **Chikhal Bhawai :**

In case of excess rain, if their crops are being destroyed then they pray to the God to stop the rain through Chikhal Bhawai pooja.

3) **Dedra Mata Poojan :**

Korku belief says this pooja is useful to end drought. These 3 poojas mainly pray to Meghnath the God of rain. In this pooja they sing 'Danda' and 'Dhandel' songs and perform dance.



“Munda” Ancestors of Korkus

At the beginning of the holy month of Shrawan, they pray to their ancestors through the celebration of 'Jiroti'. In this tradition they worship their family God, village God and their ancestors.

From the month of Ashadhi to Pola they celebrate 'Dolar parva'. In this festival all spinsters from the village sit on a swing made out of bamboo and teak, singing songs. These songs glorify the relationship between brother and sister. This Parva ends on the 2nd day of Pola festival. Once the festival ends, they take these swings to a flowing river and sink them after last Pooja.

Dushera is also one of the major festivals of Korku community.

in the winter season from Diwali till Holi festival all villagers gather at one place during night and sing 'Phagnaai' geet and 'Khedera' geet. This is a Korku way of celebrating Holi.

Holi is a flagship festival of Korku community. On this day they sing all the song which they were practising every night from Diwali. The songs praise Lord Meghnath, Mahadev and Raavan.

Holi, Festival of Fire



The Festival of Holi starts with a pooja at the village leader's (Patel's) house. 'Zhamara' is the song the Korku sings during this ritual. Once done, the Patel is taken to the Holi location in a small procession and he has the honour to set the Holi on fire while the 'Horyaar' song is sung in background. After burning Holi they hug each other to make their relationship more strong. On the Holi night they perform 'Sasun Gadli dance'.

For the next 5 days after Holi they collect money from travellers and local government officers and on the last day they celebrate together with a community feast. Collection of money is called as 'Phagwa'. In summer season the males sing 'Chachi-goglyya' and ladies sing 'chiradi' to tease each other. This is nothing but a Korku way of entertainment in summer when nothing much is left to work with in the fields.

Phagwa, Collection of Money from travellers during Holi Festival



Korku call their ancestors as 'Munda'. To pray to their ancestors they celebrate 'Gatha-shidoli.' In this festival they worship the Munda and have feast and drink local Mahua liquor. They divide the village in two groups. Both groups abuse each other loudly. They think this activity reduces their anger and contentment. This activity is called as Phool-Jagni, which means awakening of soul.

Deities of Korku



MUTHWA GOMUJ

He is the protector of village. Muthwa is situated at center of the village. Its the prime God of Korku community.

KHEDA-GOMUJ

He is situated on the edge of the village. They believe this God protects their village from outside troubles and diseases.



MUNDA

Mundas are structures made from wood and represents someone who has died from the family.

MEGHNATH

He is the son of Raavan and the most worshipped God of Korku tribal. The tower of Meghnath is made by teak poles. Korkus worship him during the Holi Festival.





MARI MAI

Korkus believe that this Goddess protects the villagers from diseases.

SITLA MATA

Korkus believe that this Goddess is the protector of new born Children.



KUKLI MATA

Korkus pray to this Goddess to cure their cough and Cold.

Mahadev is one of the most worshipped God in Korku Community.

Korkus also worship the '**Diya-Gomuj**' (Sun) and '**Rato-Gomuj**' (Moon)



Jewellery of **Korku** Women

Champatti



Bakdya



Chombhal



Jodwa



Mundi



Jimka



Kamarpatta





Pooja : During the summer season the Korku community prays to their ancestors and deities.

Phawla Hunju : It is a kind of game which is played by kids in villages during the monsoon season.

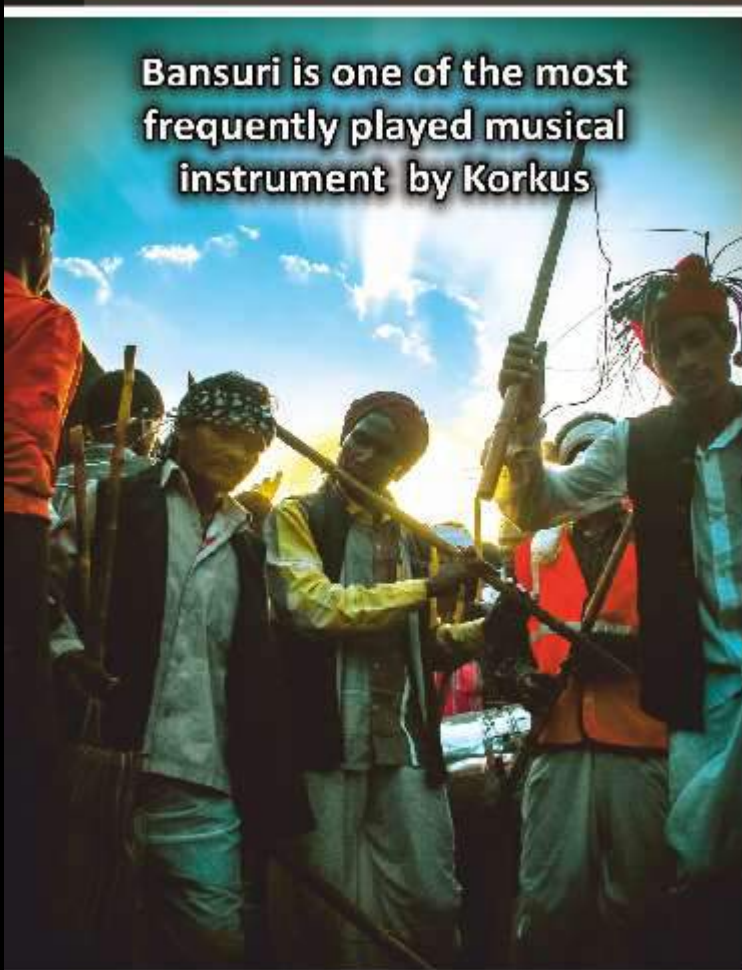


Musical Instruments of Korku

DANCING KORKU: Celebration of festivals with traditional musical instruments



Bansuri is one of the most frequently played musical instrument by Korkus



Thapati



Dholki



Gods of Melghat

The land of Melghat is has many religious destinations along with the unique geology and beautiful forest. The local tribes worship the Gods and deities to protect their families from disease and other troubles. Local tribes also worship the nature and their deities represents the reflection or connection with nature .



KANDRI BABA

There is a Hanuman temple near the Tarubanda village in Tarubanda Range of Gugamal NP. A Mela is organised by locals on the eve of Hanuman Jayanti every year.

BIDI WALE BABA

The deity is located on the tri-junction of Rajdev Baba on Akot - Harisal road. Here people offer bidi & cigarettes to seek blessings.



Gods of Melghat



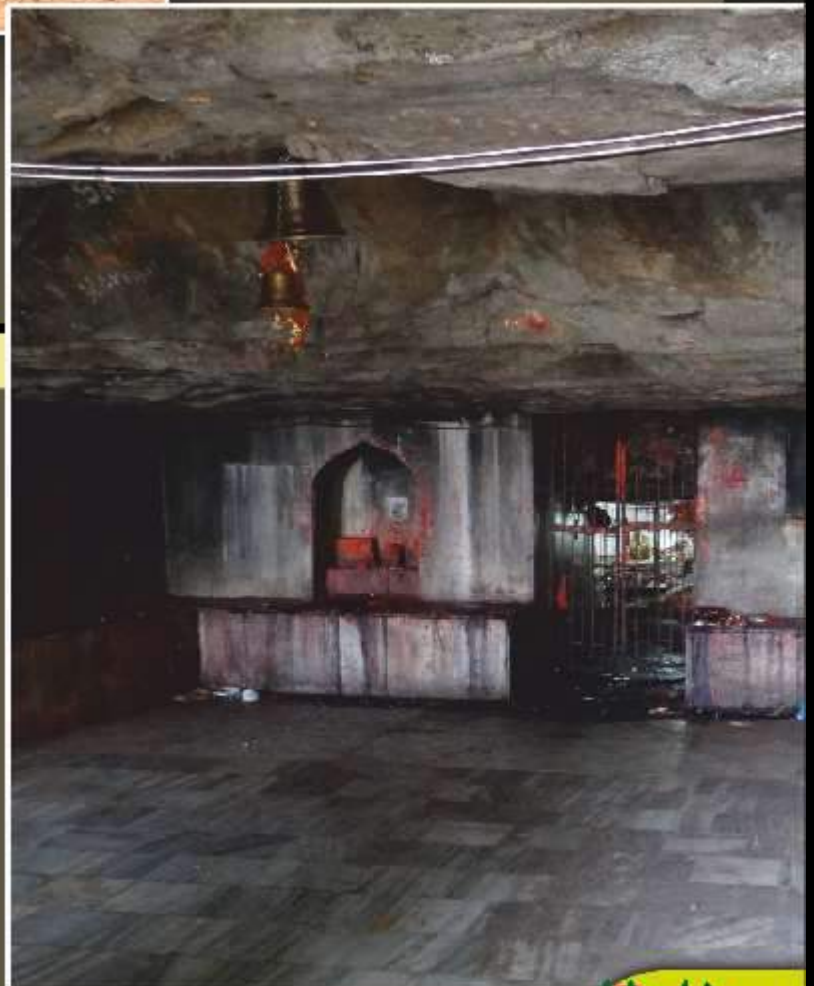
BHUMKA BABA

The temple is located near the Semadoh village on Harisal road.

As per Korku belief Bhumka means the person who cures diseases using Ayurvedic Medicine .

DEVI-POINT

It is a cave temple dedicated to Durga Mata Goddess in Chikhaldara town. Many devotees even from urban areas visit this temple to seek blessings.



Gods of Melghat

VAIRAT DEVI

This is a temple of Goddess near Vairat. Vairat is the highest peak of Vidarbha soaring to a height of 1188 meters from mean sea level.

MAHADEV TEMPLE- DHARGAD

These are series of caves naturally carved in a cliff in the core zone of Melghat Tiger Reserve. All nearby villages around this temple have been relocated outside the tiger reserve. Around 15000 people visit the shrine on the 3rd Monday of the Shravan month.





Types of Forests in Melghat

Melghat forests are deciduous in nature and have been classified as “Dry Deciduous Forest” in the Champion and Seth's “Revised Survey of Forest types of India” and fall under the sub-group “5-A southern tropical dry deciduous forests”.

The vegetation is locally influenced by rainfall variation, aspect. Soil, altitude and human biotic pressure like grazing and forest fires have influence on the forest composition. Fire resistant species like Corky bark Semal (*Bombax ceiba*) and Teak (*Tectona grandis*) has spread over Melghat dominantly & trees like Zizyphus, Stereospermum, Dalbergia sissoo and Diospyros, which has capacity to produce root suckers and adventitious shoots, are those which have survived extensive fires.

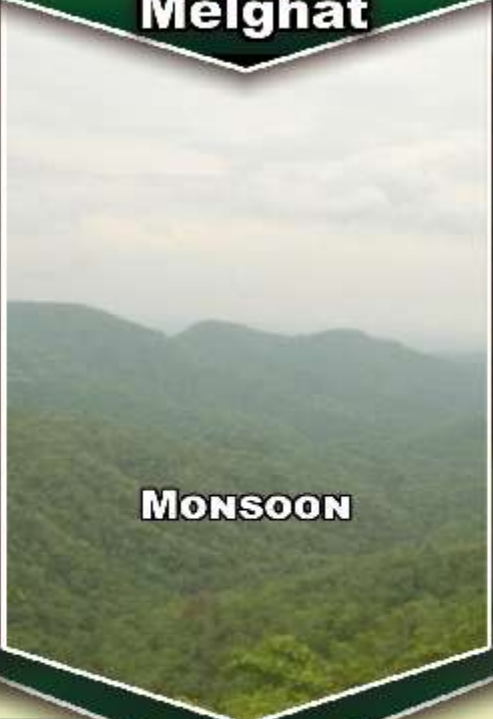
Overgrazing of ballas and periphery of villages have influenced forest types resulting in growth of non- palatable weeds like Rantulas, *Cassia tora* etc. Exotic weeds of *Lantana camera* which came in 1960's from the American continent has spread extensively in Melghat. It has become a major problem weed and it is being removed by the administration systematically over the years.




Shades of Melghat

A photograph of a dry, brownish landscape with sparse green patches, representing the summer season in Melghat.

SUMMER

A photograph of a lush green valley with rolling hills in the background, representing the monsoon season in Melghat.

MONSOON

A photograph of a green field with a dense forest of trees in the background, representing the winter season in Melghat.

WINTER

FLORA:-

More than 762 naturalised species are listed in the flora of Melghat belonging to about 400 genera representing 97 families. It includes 90 tree species, 65 shrubs species, 316 herb species, 56 climbers, 23 hedges and 99 grass species. The flora shows a combination of elements from Western Ghat and Satpuda, with many endemic species. Some of the Himalayan plant species like *Presitylus constrictus* are also reported here. The rare plants include *Convolvulus flavus*, *Utricularia striatula*, *Drosera indica* and many species of orchids like *Vanda tessellata* and *Aerides maculosum* (TCP, MTR 2011-12 to 2020-21).

A close-up photograph of a Kumbhi flower, which is a large, fluffy, white, pom-pom-like flower.


Kumbhi

A close-up photograph of a Pangara flower, which is a bright red, tubular flower with a long, slender shape.

Pangara

A photograph of a tree branch covered in numerous bright red, tubular flowers, representing the Palash tree.

Palash

A close-up photograph of a Gliricidia flower, which is a small, white, bell-shaped flower with a red center.

Gliricidia

GEOGRAPHY

In general the area consists of succession of hills and valleys, which are extension of the main series of Satpuda ranges. In this tract the main ridge of Gavilgadh hills runs East to West. The area of the Project Tiger lies in the North of this ridge. The highest point is Vairat, which is about 1188 meters above M.S.L. Numerous spurs branch from this ridge towards the north where these have flat

tops locally known as "ballas" (plateau) of considerable size. The ridges usually have abrupt slopes and form narrow valleys below locally known as "Khoras."



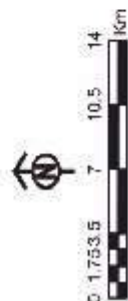
RIVERS

The area is well drained by many rivers. Most of the rivers are seasonal and water remains there till February only. The tract has five major drainage systems viz. **Khandu, Khapra, Sipna, Gagda** and **Dolar** and these rivers contribute as the important tributaries of Tapi River. There are small number of springs which are of perennial nature. Such pools and springs are very important for wild animals and live stock in the area. Absence of large surface water bodies has avoided faunal congregations and consequent damage to habitat. The main ridge of Gavilgadh hills forms a water divide between Tapi and Purna rivers.



Madhya Pradesh

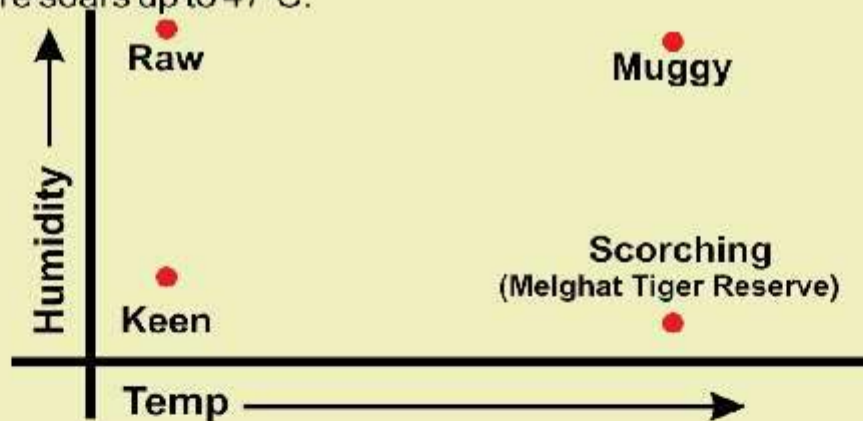
Madhya Pradesh





Climate

Melghat has a tropical climate. December is the coldest month, when night temperatures may go down to 5°C and in the month of May the temperature soars up to 47°C .



Climate Graph of Melghat

TEMPERATURE

Temperature varies considerably with the altitude. The higher hill plateaus and valleys to the north of the main Gavilgadh ridge are very much cooler in summer than the southern foot hills. The plateau and the higher hills enjoy almost equitable and pleasant climate throughout the year. While valleys become cold during winter. These valleys some-times experience heavy dew and occasional frost. The average mean maximum annual temperature is 46°C and the average mean minimum annual temperature is 4°C .

WINDS

Winds are generally light to moderate. There is no record of severe storm or cyclone of any consequence in the area. The growth of forest is slightly stunted owing to strong winds on the hill tops.

Eco-Tourism

Overview of Eco-Tourism

Eco-Tourism:-

It is a form of responsible tourism which imparts knowledge and education to the tourist on one hand and livelihood and employment to locals.

Melghat has very less and scanty tourists visiting in consideration to some others famous parks. Though the facilities of stay and food are developing, the tourism in Melghat is in a nascent phase.

The initiatives taken by Melghat Tiger Reserve in eco tourism is providing the local youth with vital livelihood support. The 5 major eco tourism destinations in Melghat Tiger Reserve are Semadoh, Kolkas, Harisal, Chikhaldara and Shahanur. The newly designed accommodation facilities at each eco tourism destination along with activities like jungle safari, adventure sports, night safari, elephant safari, kayaking have been introduced where tourists can also enjoy the delicious local food provided in the canteen.

Tiger sighting in Melghat was less traditionally. However, recent relocation of villages in Akot has improved tiger sighting in Shahanur area.

Melghat is more known for its bio-diversity like birds, spiders, insects. The best season to see nature's bounty is July to January. However tourists seeking sighting of wild animals prefer February to May months.

Details of Eco-Tourism Area

Sr. No.	Name of Area	Tourism Area	Area
1.	Melghat Sanctuary	Semadoh Tourism Zone	58.67 Sq. Km.
2.	Melghat Sanctuary	Harisal Tourism Area	48.57 Sq. Km.
3.	Melghat Sanctuary	Gullarghat Tourism Area	21.42 Sq. Km.
4.	Gugamal National Park	Chikhaldara Tourism Area	06.67 Sq. Km.
	Total		135.83 Sq. Km.

Sr. No.	Name of Area	Tourism Area	Area
1.	Melghat Sanctuary	Harisal Tourism Area	16.50 Sq. Km.
	Total		16.50 Sq. Km.

Sr. No.	Name of Area	Tourism Area	Area
1.	Narnala Wildlife Sanctuary	Narnala Tourism Area	02.03 Sq. Km.
2.	Wan Wildlife Sanctuary	Wan Tourism Zone	32.08 Sq. Km.
3.	Ambabarwa Wildlife Sanctuary	Ambabarwa Tourism Area	21.26 Sq. Km.
	Total		55.37 Sq. Km.

SEMADOH ECO-TOURISM COMPLEX

Semadoh is a village located in the dense forests of Melghat Tiger Reserve under Chikhaldara Tehsil of Amravati District, Maharashtra. Near Semadoh on the banks of Sipna River is a nature interpretation centre which consists of four dormitories and ten cottages. The cottages have been recently upgraded and are in good condition.



Activities and Facilities

Accommodation



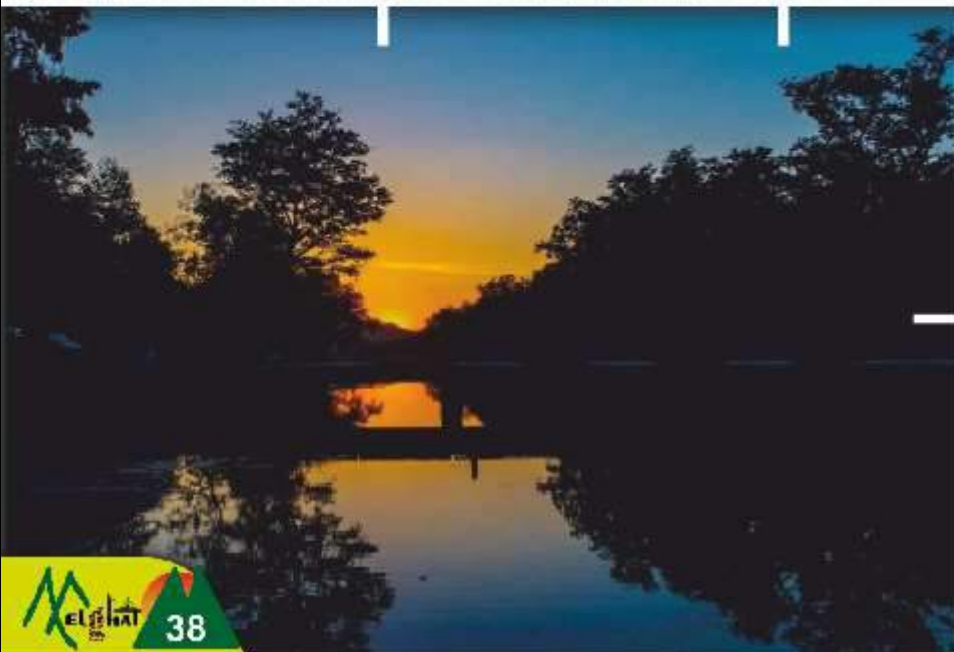
Adventure Activities



Canteen



Jungle Safari



Scenic view of
River Sipna

Jawaharkund
Waterfall

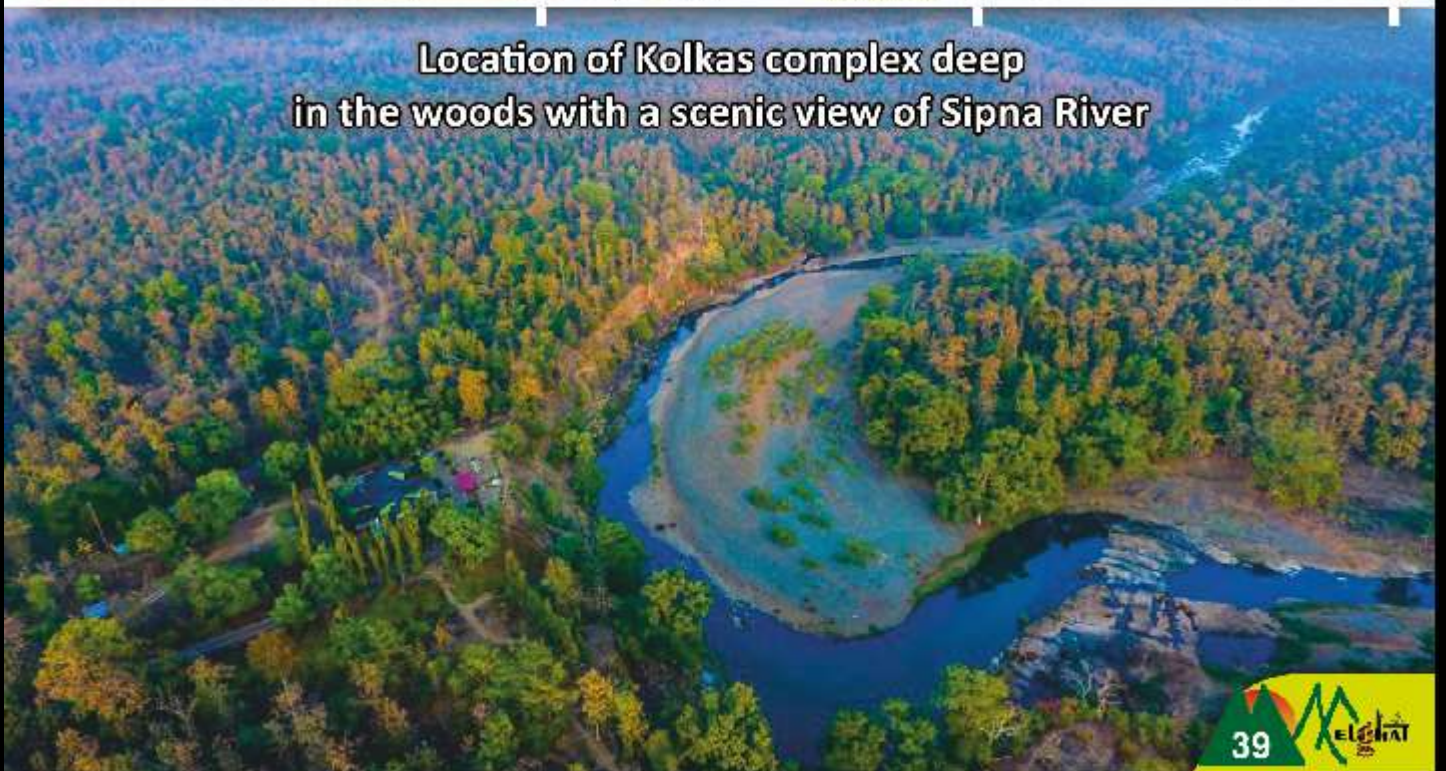


**KOLKAS ECO-TOURISM COMPLEX**

This forest rest house is situated around 15 kms from Semadoh towards Dharni. It was built for Smt. Indira Gandhi's visit in 1972. Forest Department has taken initiatives to restore it as it is built on a beautiful forest location and one of the most sought after destinations. There are 4 VIP suites 7 cottages and 2 dormitories.

Activities and Facilities**Accommodation****Elephant Safari****Canteen**

Location of Kolkas complex deep in the woods with a scenic view of Sipna River



HARISAL ECO-TOURISM COMPLEX

Harisal Eco-Tourism complex is situated around 25 kms from Semadoh towards Dharni. It is the first digital village in India initiated by Microsoft. At Harisal, forest department has built 4 VIP cottages.



VIP cottage building at Harisal

Activities and Facilities**Kayaking****Canteen****Jungle Safari and Accommodation**

Forest department has also taken initiative to build - nice forest camp sites or traditional 'Home stays'. The home stays give tourists an opportunity to learn from the lives of the local communities.



Forest view from Narnala fort

The medieval era Narnala fort and its surrounding thick green forests were declared as Narnala Wildlife Sanctuary having area of 12.35 sq. km.

Narnala fort has many artificial lakes which today provide perennial water source for animals. Tigers and cubs are commonly seen in the fort area in the summer season.

The area is well known for its richness of flora and fauna. The sanctuary area has special historical, biological, mythological, archaeological, scenic and recreational values and is a point of attraction for the tourists and the people of Maharashtra.

Clockwise, Mahakali gate of Narnala fort, accommodation, zorbing, adventure activities and canteen at Shahanur.





Chikhaldara is a hill station and a municipal council in Amravati district in the state of Maharashtra. Featured in the epic of the Mahabharata, this is the place where Bheema killed the villainous Keechaka in a herculean bout and then threw him into the valley. It thus came to be known as Keechakadara—Chikhaldara is its corruption.

But there's more to Chikhaldara. The sole hill resort in the Vidarbha region, it is situated at an altitude of 1118 m with highest vairat point 1188m and has the added dimension of being the only coffee-growing area in Maharashtra. Chikhaldara has an annual rainfall of 154cm. Temperature varies from 39 °C in summer to 5 °C in winter. Best months to visit are from October to June.



Other Tourism Activities

MACHAAN THRILL:

Machaan in buffer areas are made available for night-outs. Tourists can go and sit on a machaan for the whole night along with a forest guide. Machaans are built near waterholes where many wild animals come to drink water. Shahanur and Harisal has machaan stay booking only for 6 days per month before or after the full moon night.

(Time: 7pm to 7am.)



NIGHT SAFARI:

Tourist can see many wild animals during night in the buffer areas. Night safari is therefore a major thrill activity in Chiikhaldara, Harisal and Shahanur.

(Time: 7 pm to 9 pm
4 am to 6 am)

MONSOON TREK:

Melghat is nature's bounty. This bounty can be explored only on foot. Birders, butterfly lovers, spider experts as well as mountaineers and trekkers visit Melghat in monsoon & winter season for trekking. Shahanur, Semadoh and Harisal are the preferred destinations for trekking. Medium range and long range treks are organised.



Other Tourism Activities



KORKU DANCE:

Every festival is celebrated with music and dance by Korkus. Bansuri (Flute) and Dholaki are favourite musical instruments. They dance in circular groups.

Dance shows are organised is Semadoh & Harisal on request from tourists.



How to Reach?



BY ROAD:

From Nagpur on NH 6 to Amravati - 150 Kms
From Mumbai via Shegaon to Amravati - 645 Kms
From Pune via Aurangabad to Amravati - 568 Kms

BY RAILWAY :

Badnera Railway station on Mumbai - Kolkata route- 10 Kms from Amravati

AIRPORT:

Nagpur International Airport - 150 Kms from Amravati

DISTANCE FROM AMRAVATI TO MELGHAT: BY ROAD

Semadoh -	98 Kms
Kolkas-	113 Kms
Harisal	123 Kms
Shahanur	111 kms

Book Online: www.magicalmelghat.com



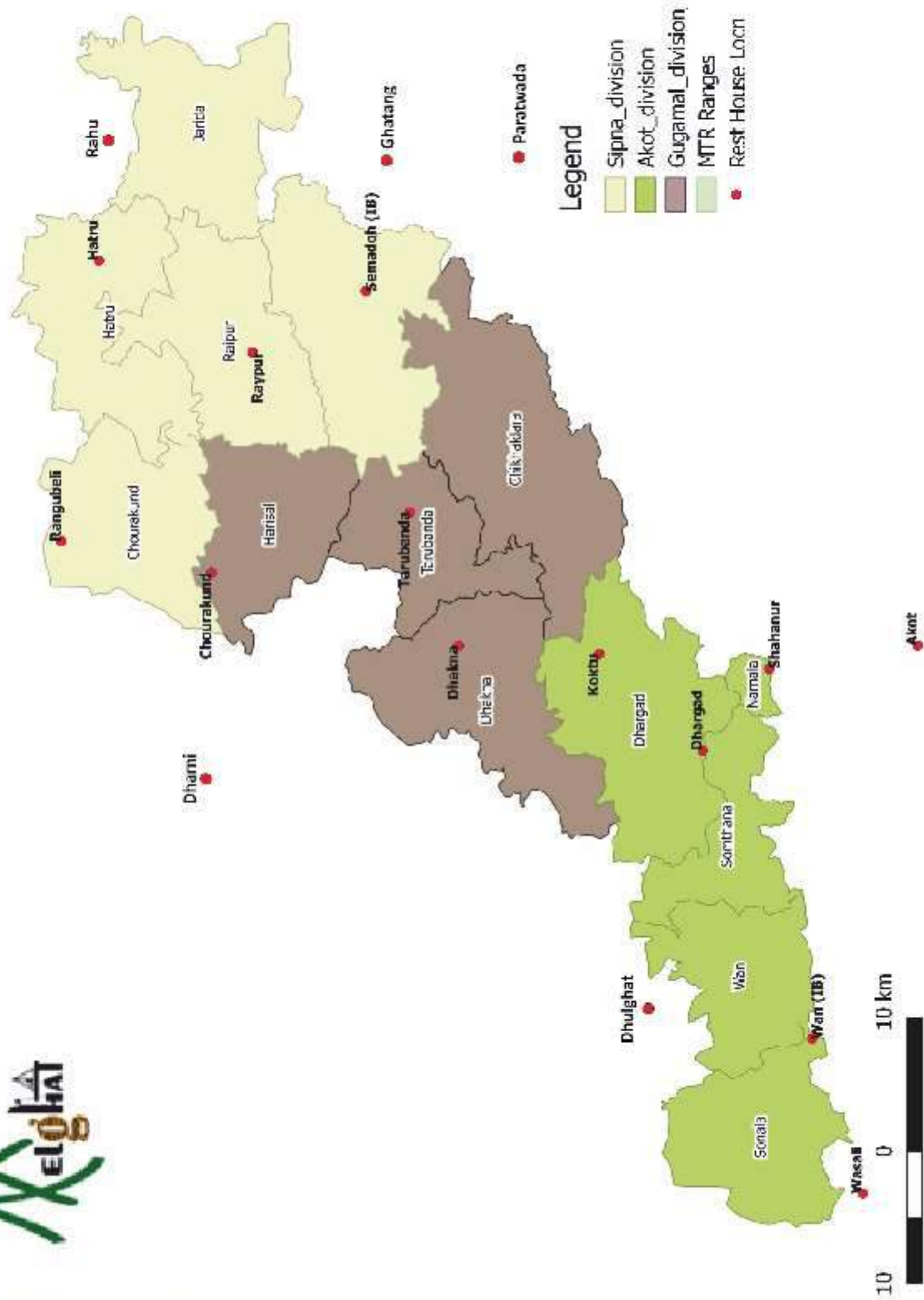
BELKUND BRIDGE
1886

Copper Plate on Belkund Bridge showing date and details of British architecture

Rest Houses of Melghat

Wan Rest house

Map showing the locations of rest houses in Melghat Tiger Reserve



Rest Houses of Melghat



Koktu Rest House

How to Reach? Amravati-Akot-Popatkhed-Dhargad-Bori-Koktu

Location

Koktu

Built in

NA

Administered by

Akot WLDn

Present Status

Restricted



Dhargad Rest House

How to Reach? Amravati-Akot-Popatkhed-Gulharghat-Dhargad

Location

Dhargad

Built in

1904

Administered by

Akot WLDn

Present Status

Restricted

Rest Houses of Melghat

Location

Akot City

Built in

NA

Administered by

Akot WLDn

Present Status

Open For
Tourists



Akot Rest House

How to Reach?

Amravati-Akot (92 km), Akola-Akot (50 km)

Location

Wan

Built in

NA

Administered by

Akot WL Dn

Present Status

Restricted



Wan Rest House(IB)

How to Reach?

Amravati-Akot-Hivarkhed-Wan (126 km)

Rest Houses of Melghat



Location

Tarubanda

Built in

19th Century

Administered by

Gugamal WLDn

Present Status

For everyone

Tarubanda Rest House

How to Reach?

Amravati-Paratwada-Harisal (Chikhali Phata)
Tarubandha (130 km)



Location (Range)

Dhakna

Built in

1908

Administered by

Gugamal WL Dn

Present Status

**Open for
Tourists**

Dhakna Rest House (IB)

How to Reach?

Amravati-Paratwada-Harisal-Selu Phata- Dhakna (160 km)

Rest Houses of Melghat

Location

On Harisal-Akot Road

Built in

1891

Administered by

Gugamal WLDn

Present Status

Restricted



Belkund Rest House

How to Reach?

Amravati-Paratwada-Harisal-Belkund (155 km)
Akola-Akot-Khatkali-Rajdev Baba-Belkund (150 Km)

Location

Chikhaldara

Built in

Administered by

Gugamal WLDn

Present Status

For everyone



Chikhaldara Rest House (Breyside)

How to Reach?

Amravati-Paratwada-Chikhaldara (80 km)

Rest Houses of Melghat



Semadoh Rest House

How to Reach?

Amravati-Paratwada-Ghatang-Semadoh (100 km)

Location

Semadoh

Built in

Administered by

PWD

Present Status

**For Govt.
Officials**



Ghatang Rest House

How to Reach?

Amravati-Paratwada-Ghatang (80 km)

Location

Ghatang

Built in

Administered by

PWD

Present Status

**For Govt.
Officials**

Rest Houses of Melghat

Location (Range)

Raipur

Built in

1892-93

Administered by

Sipna WL Dn

Present Status

Restricted



Raipur Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Raipur (125 km)

Location (Range)

Makhala
(Semadoh)

Built in

Administered by

Sipna WL Dn

Present Status

Restricted



Makhala Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Makhala(110 km)

Rest Houses of Melghat



Chunkhedi Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Makhala-Chunkhedi (130 km)
Amravati-Paratwada-Ghatang-Kokru/khamla(MP)-Jarida-Khandukheda-Chunkhedi (155 km)

Location

**Chunkhedi
(Jarida)**

Built in

Administered by

Sipna WL Dn

Present Status

Not in Use



Jarida Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Makhala-Chunkhedi-Jarida(160 km)
Amravati-Paratwada-Ghatang-Kukru/khamla(MP)-Jarida (120 km)

Location

Jarida

Built in

1926-27

Administered by

East Melghat Div.

Present Status

**Open for
Tourists**

Rest Houses of Melghat

Location

**Rahu
Jarida (T)**

Built in

1950

Administered by

East Melghat Dn

Present Status

Restricted use



Rahu Rest House

How to Reach?

Amravati-Paratwada-Ghatang-Kukru/khamla(MP)
-Jarida-Rahu (155 km)

Location

Dharni (T)

Built in

Administered by

West Melghat Div.

Present Status

Restricted use



Dharni Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Harisal-Dharni (150 km)

Rest Houses of Melghat



Rangubeli Rest House

How to Reach?

Amravati-Paratwada-Semdoh-Harisal-Chourakund-Rangubeli (190 Km)

Location

**Rangubeli
(Chourakund)**

Built in

1887

Administered by

Sipna WLDn

Present Status

Restricted use



Chourakund Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Harisal-Chourakund (170km)

Location

Chourakund

Built in

1897

Administered by

Sipna WLDn.

Present Status

Restricted use

Rest Houses of Melghat

Location

Khatakhali

Built in

Administered by

PWD

Present Status

Restricted use



Khatkali Rest House

How to Reach?

Amravati-Akot-Popatkhed-Khatkali (140km)

Location

Harisal

Built in

Administered by

PWD

Present Status

Restricted use



Harisal Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Harisal (175km)

Rest Houses of Melghat



Dhulghat Rest House

How to Reach? Paratwada-Semadoh-Dhami-Susarda-Dabka and-Dhulghat(180 km)

Location

Dhulghat

Built in

Administered by

Melghat TR

Present Status

Restricted use



Paratwada Rest House

How to Reach? Amravati - Paratwada (50 km)

Location

Paratwada

Built in

Administered by

PWD

Present Status

Restricted use

Rest Houses of Melghat

Location

Hatru

Built in

Administered by

Melghat TR

Present Status

**Open for
Tourist**



Hatru Rest House

How to Reach?

Paratwada Ghatang-Jarida-Hatru (110 km)

Location

Kolkas

Built in

Administered by

Sipna WLDn

Present Status

Restricted use



Vasant Sankul

How to Reach?

Amravati-Paratwada-Semadoh-Kolkas (115 km)

Rest Houses of Melghat



Location

**Kolkas
(Semadoh)**

Built in

1970

Administered by

Sipna WL Dn.

Present Status

**Open for
Tourists**

Kolkas VIP Rest House

How to Reach?

Amravati-Paratwada-Semadoh-Kolkas (115 km)



Patulda

Rangrao, Bhutrum and Patulda rest houses does not exist now



Mahakali Gate of Narnala Fort

A photograph of a stone archway in a fort wall, surrounded by lush green vegetation and rocks. The archway is made of dark stone and has a pointed top. Above the arch, there are several circular decorative elements. The wall is made of large, dark stone blocks. The foreground is filled with green plants and rocks.

Forts of Melghat

It is situated on the top of the hills near the Shahanur Village in Akot Wildlife Division. According to historical records, it was built by the Gond king Narnal Singh in the 10th century. Later it was captured by Mughals and Bahamani kings. This fort was ruled by many kingdoms but now it is ruled by the tigers. It is one of the most fascinating historical monuments of the Satpuda hill ranges. The triple layered wall protected the fort from enemies. It extended 38 Kms. The area of fort is spread over the 392 acres which originally had 22 gates and 360 bastions. Narnala fort consists of three separate fort areas viz; Jafarabad in the east, Narnala in the centre and Teliagadh in the west. On the fort there are 22 water bodies which is now its main source of water for wildlife. Out of the 22 water bodies 6 are perennial. The main lake is situated near the main structure of the fort and is known as *Shakkar talaw*. Nowadays it has become a main attraction for the tourists.

How to Reach?

Amravati-Akot-Shahanur-Narnala (130 km)


Mahakali Gate

Shakkar Talaw

Mosque

Gaja-Shala

Rani Mahal

Tomb of Burhanuddin

Nau-Gaj Canon



One of the entrances to Gavilgadh fort

The name Gavilgadh originated from Gawali community – the cattle rearing community, who were rulers of the shepherd community in the 12th / 13th century. The fort was built by them. Later it was captured by Gond kings till the Mughals defeated them. After that it was conquered by Maratha's and in the last phase it was conquered by Britishers during 2nd Anglo-Maratha war. The Gavilgadh fort lies near the Chikhaldara town. There are two large water tanks still existing namely Devtalav and Khantalav. 10 canons are present in the fort which increases the beauty of the fort.

Nowadays the fort is under the administration of Forest Department and the structure is protected and maintained by Archaeological Survey of India.

How to Reach? Amravati- Paratwada - Chikhaldara- Gavilgadh (90 km)

A lake at Gavilgadh



Canon



The Amner Fort is situated on the confluence of river Gadga and Tapi near Zilpi village.

This is a compact quadrangular fort, spread in one acre area.

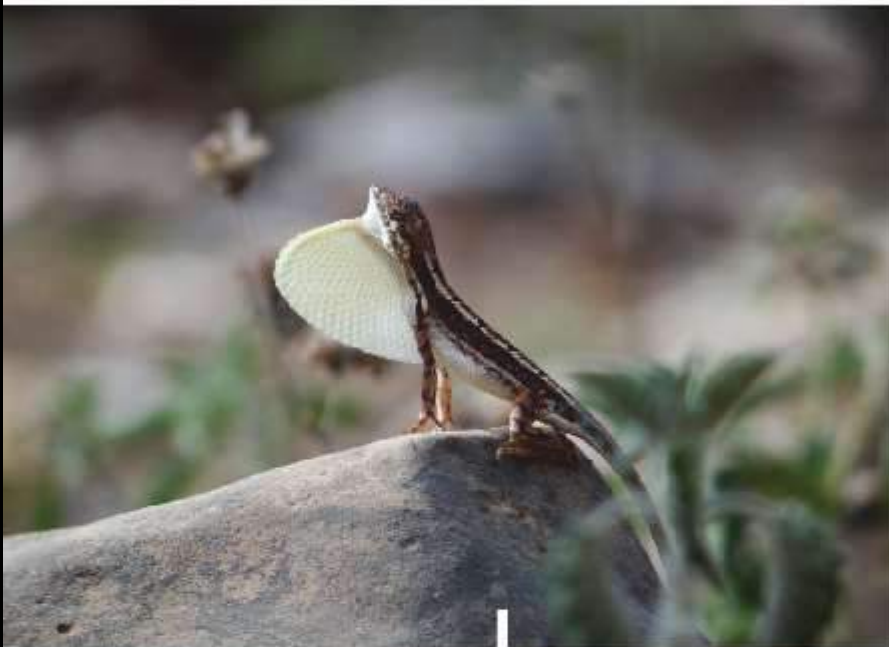
There is only one entrance to the fort. Today the fort is amidst ruins and the walls are crumbling down.

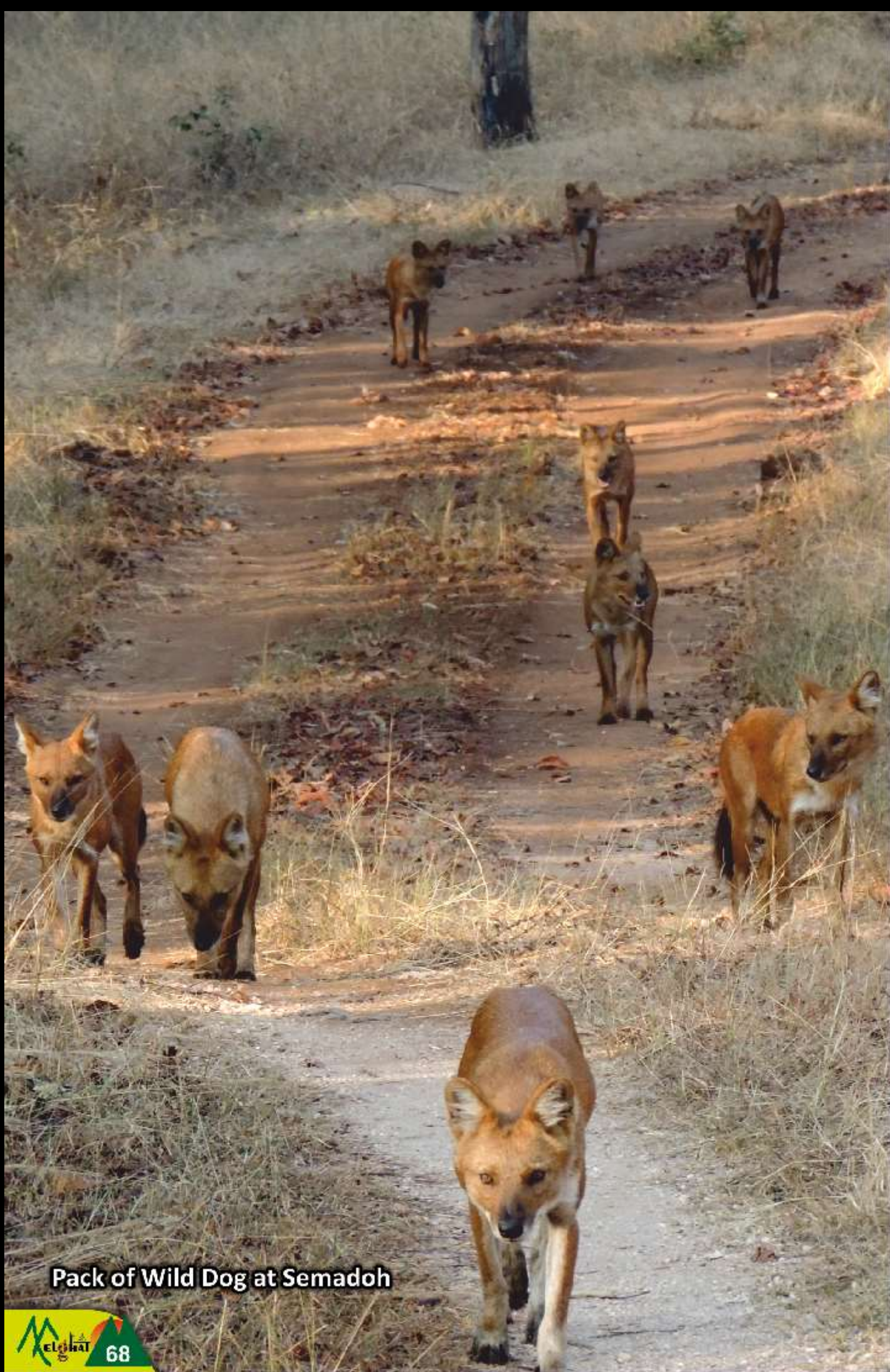
How to Reach?

Amravati- Paratwada- Dharni- Bhokarbardi- Zhilpi (180 km)



Biodiversity of Melghat Tiger Reserve





Pack of Wild Dog at Semadoh



MAMMALS

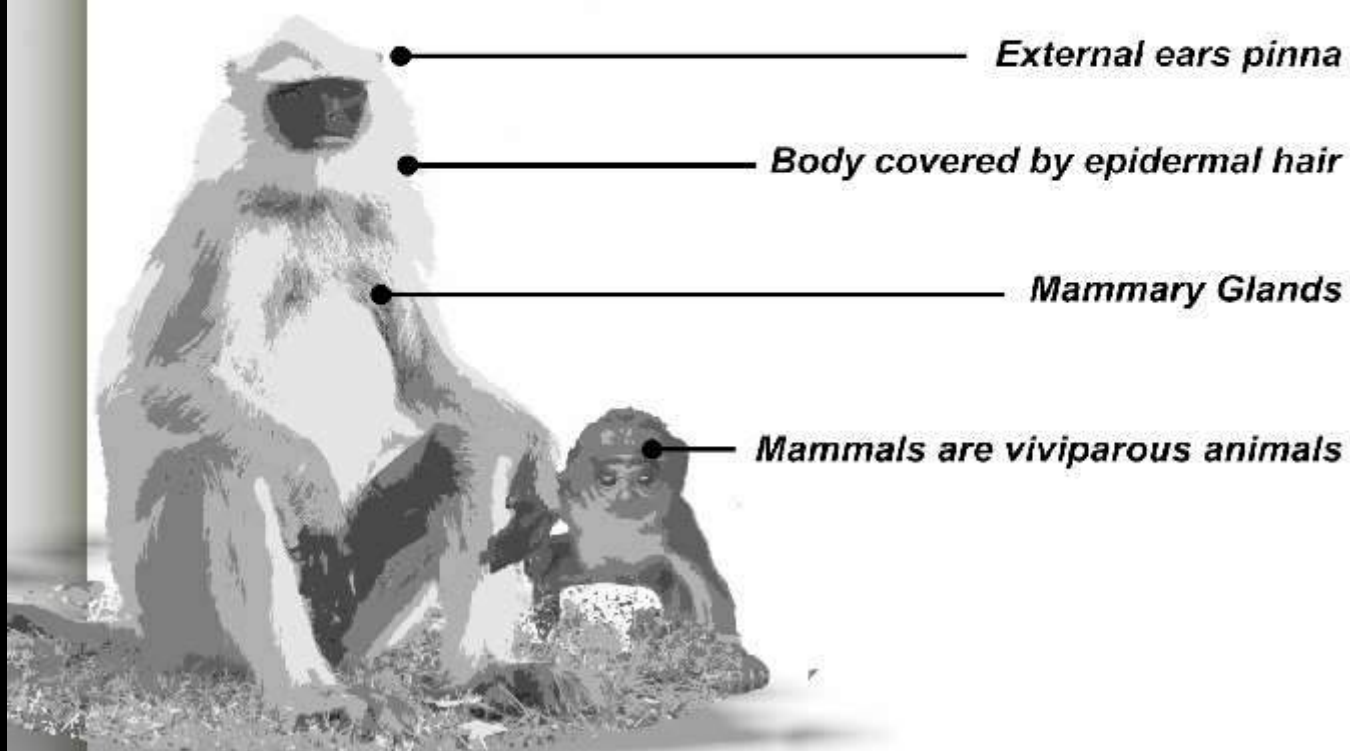
"A warm-blooded vertebrate animal of a class that is distinguished by the possession of hair or fur, females that secrete milk for the nourishment of the young, and (typically) the birth of live young." (www.dictionary.com)



Rhesus Macaque



Characteristics of Mammals



1. Body of mammals is covered by epidermal hair.
2. Integumentary glands are — sweat (sudoriferous), sebaceous (oil), scent (odoriferous) glands.
3. Mammary glands are present to supply milk for the nourishment of suckling young.
4. External fleshy pinna is present in mammals.
5. Eyes with upper and lower eyelids and often with eyelashes.
6. Nictitating membrane is translucent and hairless; it is vestigial in higher mammals.
7. A muscular diaphragm is present in between the thoracic and abdominal cavities.
8. Endo-thermal homoeotherm animals.



9. RBCs are non-nucleated, biconcave and usually circular in form.
10. The four-chambered heart is highly powerful.
11. Only left aortic arch is present in the arterial system.
12. Cerebral hemispheres are very large and highly convoluted.
13. Cerebellum is large, complex and solid in mammals.
14. There is a single urinary bladder in mammals.
15. Testes remain in scrotal sacs.
16. Small eggs are devoid of yolk. Fertilisation is internal.
17. Mammals are viviparous animals.
18. The skull has double occipital condyles. Quadrate absent.
19. A bony palate is formed by the union of premaxillae, maxillae and palatines that separates the nasal passage from the buccal cavity.
20. The lower jaw is composed of a pair of bones — the dentaries.
21. Vertebrae are acoelous type.
22. Ribs are double-headed — capitulum and tuberculum.
23. The teeth are heterodont, thecodont and diphyodont type.
24. Molars are tribosphenic (three-cusped).
25. Paired forelimbs and hind limbs are present in mammals.
26. The digits of the limbs are provided with either claw or nail or hoof.
27. Twelve pairs of cranial nerves.



Sambar at Gullarghat meadows



Tiger (*Panthera tigris*)

बाघ (मराठी), बाघ (हिन्दी), कुला (कोरकु), पुल्ली (गोंड)



Size

Weight

Male:
175 to 260 Kg
Female:
100 to 160 Kg

Body Length

Male:
355 to 420 cm
Female:
325 to 375 cm

Height (SL)

Average
90-110 cm

Tiger is the iconic species of India when it comes to conservation. This majestic creature is our national animal. The name "tiger" is originated from river Tigris, meaning arrow in arabic.

Tigers are found mainly in tropical forests of Asia. Tigers are the largest cat species on the globe, classified in the genus *Panthera* along with the lions, leopards and snow leopards. The Royal Bengal Tiger is a rich-coloured well-striped animal with short coat. Tiger has a tawny orange coat patterned with black stripes. Every tiger has unique stripes pattern and each individual can be identified by this pattern. The under part of the body is pure white with patches on face and cheeks. The back of each ear is black with a winking white spot on it. The tail is long slim and banded with black rings till the end of the tip.

All senses of tigers are good. Tiger can see in the dark 10 times better than humans. It is a very good hunter. Tiger prefers to hunt large deer especially sambar but it is also a quite adaptable species to hunt small animals like spotted deer, wild boar and even langurs. It can hunt down large powerful herbivores like Indian gaur and domestic animals. Tiger is mainly nocturnal hunter, but It sometime also becomes active in the day time.

IUCN Status

EN

WPA Status

Schedule-1

Group

Carnivores

Activity



Social Unit

Solitary

Diet / Prey



Breeding Season

Throughout the year

Pugmark



Master of camouflage

4 cubs is the average litter size of tigers.





Leopard (*Panthera pardus*)

बिबट्या, बिबळ्या (मराठी), बिबट (हिन्दी), चिता (कोरकु, गोंड)



Size

Weight

Male:
45 to 77 Kg

Female:
30 to 45 Kg

Body Length

Male:
279 to 349 cm

Female:
256 to 314 cm

Height (SL)

Avg.
50 to 75 cm

Pugmark



Leopard is the most adaptive feline species in India, It is found in all kinds of habitat, ranging from dense forest to scrub land and even human dominant areas like sugar cane fields. Leopards have a clear yellow coat marked with black hollow rosettes. The pattern of rosettes are unique in each individual like tiger stripe pattern. Rosettes are most prominent on back and flanks. The spots fade towards the white underbelly and inside and lower part of the legs.

Males are larger and heavier than females. It is muscular with relatively short limb and broad head. Leopards are active mainly from dusk till dawn and rest in caves and over tree branches. The Leopard is a very successful hunter. It can run up to 58 km/hr and can jump up to 3 meters vertically. It is a very good swimmer and is able to climb a tree better than other big cats.

IUCN Status

EN

WPA Status

Schedule-1

Group

Carnivores

Activity



Social Unit

Solitary

Diet / Prey



Breeding Season

April, May





Jungle Cat (*Felis chaus*)

रान मांजर (मराठी), जंगली बिल्ली (हिन्दी)



Size

Weight

5 to 6 Kg

Body Length

80 to 115 cm

Pugmark



*Jungle cat
in its
habitat*

Jungle cat is the most common cat found in the Melghat jungle. It is medium sized. It has grey brown colour fur with two black stripes on inner side of the fore legs and black colour rings on its tail. Long erected ears with tuft are clearly visible in adult but its smaller than Caracal. The tail is short. Kittens have marks all over the body in the initial stage after birth. The Jungle cat is able to kill a prey bigger than itself like porcupine and fawn of chital. Its diet consists of variety of other small animals from rodents to birds and lizards.

*New born kittens of
Jungle Cat*



Tuft on the Ear



IUCN Status

LC

WPA Status

Schedule-II

Group

Carnivores

Activity



Social Unit

Solitary/Pair

Diet / Prey



Breeding Season

December
and June





Wild Dog (*Cuan alpinus*)

जंगली कुत्ता, कोलसुंद, ढोल (मराठी), जंगली कुत्ता (हिन्दी), डोंगर सिटा (कोरक)



Size

Weight

Male:
15 to 20 Kg

Female:
10 to 13 Kg

Body Length

120 to 185 cm

Pugmark



Asiatic wild dog is also called as "whistling killer". It is the most successful hunter in the wild. It is reddish brown in colour. The underside, chest, inner legs and lips have varying amount of white or cream fur on it. Its body is slim like that of a wolf but it has short legs and a bushy black tail. The size of a wild dog is almost equal to a domestic dog. The ears are rounded and erected in a manner to provide better accuracy to locate their prey by their movement. They hunt in packs with defined good strategy. They start eating the prey from the first bite of catch. Their prey consist mainly of sambar and chital but they also hunt wild boars and other small herbivores.

The pups are sooty brown in colour and turn russet after three months.

A whole pack of wild dog can even hunt down an adult tiger.

Photo source: Wikipedia, A Tiger Hunted by Indian Wild Dogs (1807) by Samuel Howitt



A pack of Asiatic Wild Dogs (puppies) in Melghat Tiger Reserve

IUCN Status

EN

WPA Status

Schedule-1

Group

Carnivores

Activity



Social Unit

Packs

Pack Size

15 to 20

Diet / Prey



Breeding Season

February,
March





Jackal (*Canis aureus*)

कोल्हा (मराठी), सियार (हिन्दी)



Size

Weight

Male:
7.6 to 9.8 Kg

Female:
6.5-7.8 Kg

Body Length

Male
76 -84 cm

Female
74 - 80 cm

Height (SL)

38 - 50 cm

Pugmark



*Jackal
in its
habitat*

The Golden jackal is a slender, medium sized canid with long legs pointed muzzle and relatively short bushy tail. Upper part of buff coat is black in colour while the head and sides of the legs are tawny red in colour. The underside, throat and the area around the eyes and lips are white. The tail is bushy with black tip like wolf and fox.

The jackal is a very successful hunter. It mostly feeds on rodents. They are also scavengers. They are very adaptive & can survive in any kind of habitat, even around human settlements.



IUCN Status

LC

WPA Status

Schedule-II

Group

Carnivores

Activity



Social Unit

Solitary/Pair/
Small Group

Diet / Prey



Breeding Season

February
to March





Grey Wolf (*Canis lupus*)

लांडगा (मराठी), भेडीया (हिन्दी)



Size

Weight

Average:
16 to 25 kg

Body Length

Male
100 to 130 cm

Female
87 to 117 cm

Tail
40 to 52 cm

Height (SL)

66 to 81 cm

Grey wolf looks like a dog, slim in body, with a big head, long limbs, lightly curved tail and short ears with long muzzle. The colouration sometimes varies according to the habitat, but mostly it is sandy fawn coated stippled with black.

They hunt in packs and some times males are also found solitary. The wolf normally lives in scrub and grasslands and even in desert regions. They live in caves borrows and cavities in rocks which provide them good shelters. They hunt by day or night. Basically they hunt down the chinkara and blackbuck, including birds and small mammals. They also sometimes lift the livestock like goat and sheep.

IUCN Status

LC

WPA Status

Schedule- I

Group

Carnivores/
Scavenger

Activity



Social Unit

Lives in small packs consisting of 5 to 6 individuals.

Breeding Season

November and December





Indian Fox (*Vulpes bengalensis*)

खोकड (मराठी), लोम्बडी (हिन्दी)



Size

Weight

Male
2.7 to 3.2 kg
Female
more than
1.8 kg

Body Length

Male
39 to 57 cm
Female
46 to 48 cm
Tail
24 to 32 cm

Indian Fox is also called as Bengal fox. It is mostly found in semi arid and short in height grassland kind of habitats. Indian fox is relatively small in size with an elongated muzzle, long and pointed ear and bushy tail. The color of fur is generally greyish. Its leg always looks slightly darker brown than the rest of the body. There are small black patches of hair on the muzzle in front of the eyes.

The bushy tail is helpful to take turns when they are chasing or hunting.

Indian fox are nocturnal they stay in the dens during the day time and comes out after the dark. Dens are made under the rock ledges with many openings.

IUCN Status

LC

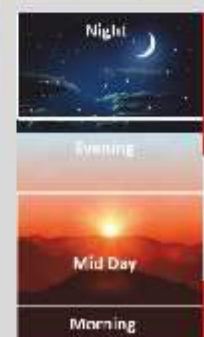
WPA Status

Schedule- II

Group

Carnivores

Activity



Social Unit

Solitary or Pair

Diet / Prey



Breeding Season

October/
November





Striped Hyaena (*Hyaena hyaena*)

तरस, तडस्या वाघ (मराठी), लकड बग्गा (हिन्दी)



Size

Weight

Male:
26 to 41 Kg
Female:
26 to 34 Kg

Body Length

100 to 115 cm

Height (SL)

Avg.
66 to 75 cm

**Striped
Hyaena
caught on
camera trap**

Hyaena is the most mythical animal in India. It is found on the outskirts of forest. The distinct identification characteristics of hyaena is shorter hind legs than forelegs. It is large shaggy. It has thick neck, large head, powerful jaws with unique premolar teeth. It's body is covered with thick tawny to grey or dirty white coat, with 5-9 black stripes on the flank. Two stripes on cheek and horizontal stripes on legs, long fur from the shoulder to the hindquarter and the back has a dark crest. When it feels threatened its fur will stand erect trying to show large size than actual.

It is basically a scavenger but some times it also hunts the domestic dogs and small deer. Calling of hyaenas are like laughing call that ends in a cackle which is heard at night in its habitat and has given rise to many superstitions.

The male and female are almost equal in size. Only during lactation based on nipples the female can be identified. A hyaena chooses to live near human habitation as well as open and dry thorn forest. Presence of the hyaena is linked with availability of denning sites, which could be caves in rocky terrain, burrows dug by them or holes they use dug by porcupines.



IUCN Status

NT

WPA Status

Schedule-III

Group

Carnivores
Scavenger

Activity



Social Unit

Solitary/Pair

Diet / Prey



Breeding Season

There is no specific breeding season

Pugmark





Sloth Bear (*Melursus ursinus*)

अस्वल (मराठी), भालू (हिन्दी), बाना/रिच (कोरकु), येडजा (गोंड)



IUCN Status



WPA Status

Schedule-1

Group

Omnivores

Activity



Social Unit

Solitary

Diet / Prey



Breeding Season

December
January

Size

Weight

Male:
127 to 145 Kg
Female:
64 Kg upwards

Body Length

150 to 210 cm

Height (SL)

Avg.
90-110 cm

Pugmark



The sloth bear is well known as dancing bear in India. It has shaggy hair with long snout, remarkable "V shape" marking on chest. It is this unique identification feature for the sloth bear. It has elongated muzzle, black shaggy fur, short hind legs, dirty white or yellowish muzzle. At the tip of the feet, the claws are long and ivory white in colour. Comparatively forelegs are longer than hind legs. It is a very good tree climber. It climbs the trees to get honey.

Scratch marks on tree trunk of a Sloth Bear



A hole dug by Sloth Bear to get insect larvae



Sloth bear are very good climbers. They climb a tree to get honey





Ratel / Honey Badger (*Mellivora capensis*)

चांदी अस्वल (मराठी)



The world's most fearless mammal.

Size

Weight

7-13 kg

Body Length

75 - 105 cm

Pugmark



The honey badger is also known as 'ratel'. It belongs to the Mustelidae family.

It looks like a bear, with short and steady legs and short tail. Its snout is not very prominent. The upper part of the body from head to tail end is silver-grey in colour with the underpart being deep brown or black in colour. The nails of forelegs are larger than hind legs. It is very useful for digging. On first sight, both male and female looks similar but normally males are larger than females.

The honey badger can produce a stinking liquid from glands near the bottom, which helps to protect themselves from predators in close encounters.

IUCN Status

LC

WPA Status

Schedule-1

Group

Carnivores

Activity



Social Unit

Solitary/Pair

Diet / Prey



Honey badger captured on camera trap at Melghat Tiger Reserve





Common Palm Civet (*Paradoxurus hemaphroditus*)

मसण्या उद, उद मांजर (मराठी), उद बिलाव (हिन्दी)

Size

Weight

1.5 - 4.5 kg

Body Length

Body Length:

42-71 cm

Tail length:

40-66 cm

Breeding Season

Diet / Prey



Pugmark



The Common Palm Civet is also known as toddy cat. The body is long and narrow, with short legs. The entire body is covered with grey bushy hair with three rows of black markings. The ears are erected and elongated. There is a white spot on the black nostril. The tail is long almost equal to the length of the body. Palm civets are more arboreal i.e. they spend day time in hollow cavities of trees and are active after sunset till morning. In threatened conditions, it secretes a nauseating scent from the anal glands, which is used as its chemical defense.



IUCN Status

LC

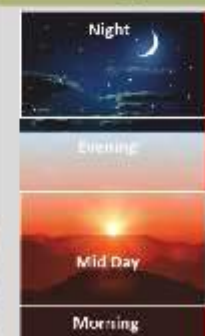
WPA Status

Schedule-II

Group

Omnivores

Activity



Social Unit

Solitary

Small Indian Civet (*Viverricula indica*)

Size

Weight

2 - 4 kg

Body Length

70 - 110 cm

Breeding Season

September to October

Diet / Prey



Pugmark



The Small Indian Civet is brown, yellowish or tawny orange in colour with black spots on both flanks and three to five dark bands on back. Legs are black or brown. It has black and white rings on the tail. The ears are small rounded in shape and always erect.

Small Indian civets are primarily terrestrial. they climb well. They are nocturnal and during day time it hides in borrows and hollow trees.

IUCN Status

LC

WPA Status

Schedule-II

Group

Omnivores

Activity



Social Unit

Solitary



The Indian Porcupine (*Hystric indica*)

सायाळ (मराठी), जीकडा (कोरकु)



Size

Weight

Average
11 to 18 Kg

Body Length

Average
60 to 90 cm
Tail:
8-10 cm

**Porcupine
caught in
camera trap**

The body is covered with spines. It is the most distinct characteristic of the porcupine. It belongs to the rodent family. The body is covered with black and white quills around 15 to 30 cm long. It has short tail which ends with bunch of thick white quills.

The quills are erect and the tail grows, when they feel threatened. If any predator approaches, they rush backwards and leave the quills embedded in the victims body. Some times even a tiger or a leopard becomes immobilized due to the quills and this can lead to mortality too.

For living they choose the rocky hill sides or places where they can make borrows.

A popular belief is that porcupines "shoot" their quills towards the victims. This is totally incorrect. They are mostly nocturnal and during the day time they rest in burrows. Porcupine diet consists of leaves, fruits and some times they also eat the deer antlers from which they get the required calcium carbonate. Their quills are made of that compound.

IUCN Status

LC

WPA Status

Schedule- IV

Group

Herbivores

Activity

Night

Evening

Mid Day

Morning

Social Unit

Mostly solitary or occasionally in groups of 3 -4 individuals

Breeding Season

Mating takes place mostly during July and September

**Porcupine
quills
in defensive
situation**





Indian Gaur (*Bos gaurus*)

रान गवा (मराठी), जंगली भैंसा (हिन्दी)



Size

Weight

Male:
650 to 1500 Kg
Female:
400 to 1000 Kg

Body Length

Avg.
250 - 330 cm

Tail Length
76 to 88 cm

Height (SL)

165 - 225 cm

Hoof mark



The unique identification features of the Indian gaur are that they are large, huge bovines with white stockings like colour from hoof to hock. Both sexes have a massive head, deep chest and muscular shoulders that forms a step midway along the back. It is clearly visible in a male. The horn is brownish yellow at the base with a bluish green tinge in the mid and its tip is dark brown in colour.

The Indian Gaur is very calm compared to its size unless it is tormented. A single male is more aggressive, but in the herd they become very calm. Their smelling sense is well developed.

Indian gaurs are herbivores. They feed on grass, herbs and shrubs and in dry season they eat the dry grass. Observations recorded in Melghat shows that they feed on bark of teak tree in the summer the season.



Dung of Gaur

IUCN Status

VU

WPA Status

Schedule- I

Group

Herbivores

Activity



Social Unit

Solitary (male) / Group (30-40 individuals)

Breeding Season

December to June



Herd of Indian Gaur

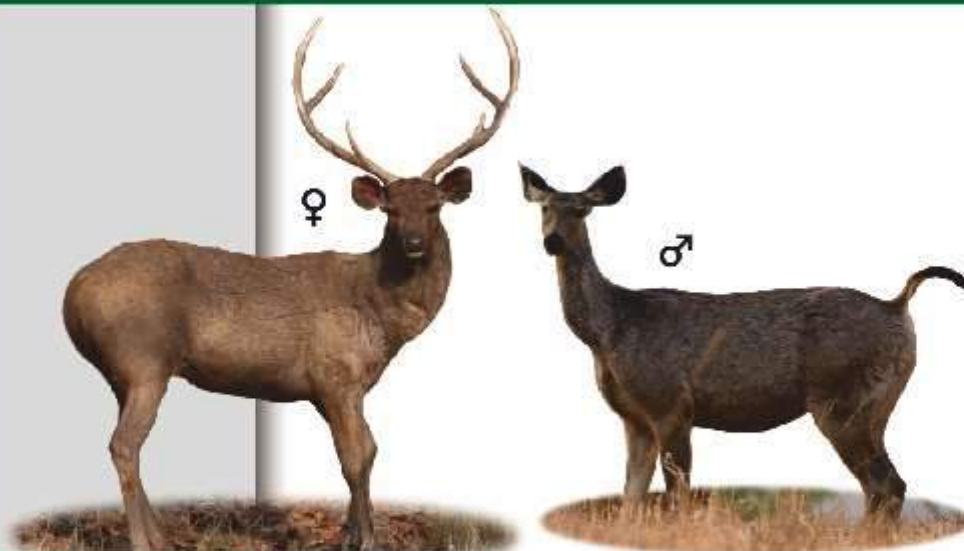


Lactating female of Gaur with calf



Sambar (*Rusa unicolor*)

सांबर, ढाकर (मराठी)



Size

Weight

Male:
180 to 270 Kg

Female:
130 to 230 Kg

Body Length

Avg.
160 - 210 cm

Height (SL)

110 - 160 cm



Horn Structure

Sambar is the largest deer in India. It is shaggy with a dark brown coat. The underparts are paler. Females are lighter in tone. The full grown male may have a dark brown or almost black coat. The males have mane on their neck and throat. There are large spreading antlers on a male. Females don't have antlers. A majority of stags shed their antlers between the end of March and mid-April. The new antlers emerge in month of May. Initially it is velvet in colour and texture.

The Sambar is the main food source for a tiger in most of the habitats in India. It is herbivore & feeds on grasses, leaves and various kinds of wild fruits. They feed mainly at night and retire into heavy cover at day break and do not usually come out till dusk.

Pellets



IUCN Status

VU

WPA Status

Schedule- III

Group

Herbivores

Activity



Social Unit

Solitary(male)/
group (4-5
individuals)

Breeding Season

May to
early June

Hoof mark



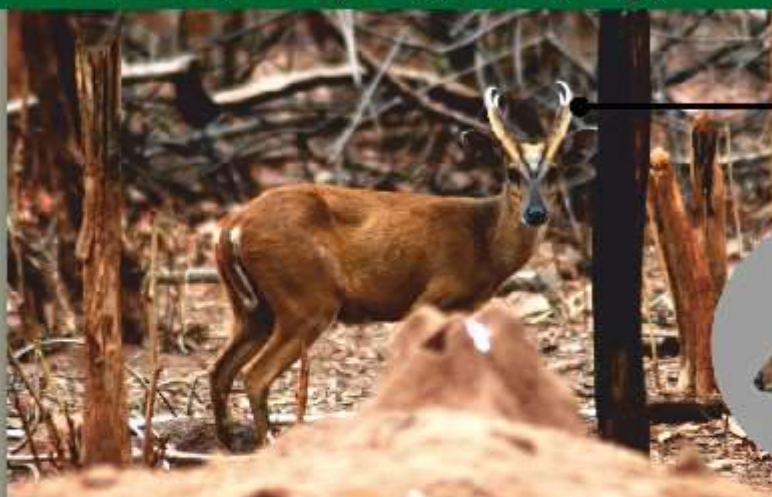
Sambar fawn





Barking Deer (*Muntiacus muntjac*)

भेकर, काकर, भेडकी (मराठी), योतडी (कोरकु)



Male



Female

Size

Weight

Male:
20 to 28 Kg

Body Length

Avg.
90 - 120 cm

Height (SL)

50 - 70 cm



Skull structure

Barking deer or muntjac is the most common deer found in all types of forests of India. It has glossy, reddish brown fur and the underpart is mostly greyish or whitish in colour. The forelimbs are longer than hind limbs. Males have well developed unbranched but small antlers mounted on long pedicles curved inwards. The upper canine of the male are well developed and some times used in self-defence.

They are fairly active in day time. They mostly feed on various leaves and grasses and wild fruits. Their calls from a distance sounds much like the bark of a dog. That is why they are called as barking deer. It is their alarm call, which mostly happens when carnivores are around. Such calls are given out at intervals, usually in the morning and evenings.



IUCN Status

LC

WPA Status

Schedule- III

Group

Herbivores

Activity



Social Unit

Solitary/Pair

Breeding Season

Thought year

Hoof mark



Hind



Fore

Barking deer found at a waterhole on a misty morning in Melghat Tiger Reserve



Barking Deer (Illustration)





Spotted Deer (*Axis axis*)

चितळ (मराठी)



Size

Weight

Male:

70 to 85 Kg

Female

45 to 60 Kg

Body Length

Male

150 to 155 cm

Female

140 to 145 cm

Height (SL)

85 to 95 cm



Skull structure

Spotted deer is the most common, most visible and most beautiful deer found in India. It is the only deer which has spots present on its body in both sexes. Morphologically the head is slightly lighter shade of golden brown than the body and eyes are surrounded by a ring of paler furs. Males have dark facial markings. A dark dorsal stripe runs the length of the animals back and is bordered by a row of spots. The underpart is white or cream in colour. The tail is short with white under part. The legs are short and strong with white or creamy underparts and has a light brown or whitish brown outer parts.

They are mostly active in the morning and late afternoon and rests in shaded areas during the midday heat.

IUCN Status

LC

WPA Status

Schedule- III

Group

Herbivores

Activity



Social Unit

Group

Breeding Season

Thought year

Hoof mark



A herd of Chital



Four-Horned Antelope (*Tetracerus quadricornis*)

चौसिंगा (मराठी)



Size

Weight

Avg:
15 to 25 Kg

Body Length

Average
90 to 110 cm

Height (SL)

55 to 65 cm



The distinct characteristics of the antelope is that the males have four horns, which gives them the name 'Chousingha' in local language.

The coat is dark brown and inside of the legs are white in colour. They have four horns, two between the ears and the second pair right on the front of the fore head. The back horns are 10 cm long and the front horns are up to 4 cm long. Only males have horns. The colour of ears from the outside are blackish brown. They have thin legs and have a dark brownish black stripe down the front of each leg. However, females are much smaller and horns are absent.

It prefers scrub forests and grass land kind of habitats where availability of water is good. It uses the same sites regularly for defecation and the droppings are laid in piles like the Nilgai. It is a way of communication and territory demarcation.

IUCN Status

VU

WPA Status

Schedule- I

Group

Herbivores

Activity



Social Unit

Solitary/Pair

Breeding Season

Mating takes place during July to September



Pair of Chousingha in a dry river bed in Melghat Tiger Reserve



Blue bull or Nilgai (*Boselaphus tragocamelus*)

निलगाई/रोही (मराठी)



Size

Weight

Male:

200 to 288 Kg

Female:

120 to 220 kg

Body Length

Average

180 to 210 cm

Height (SL)

120 to 140 cm

Hoof mark



The Blue bull or Nilgai is the largest antelope in India. The adult male are iron-blue to light grey, while females and calves are sandy brown with white and black markings on the body. Both sexes have two white spots on each cheek near the lips. The undersurface of the body and tail is white. Both sexes have dark manes and males wear a distinct tuft of stiff black hairs on the throat. Males have stout cone like horns.

The Nilgai generally avoids dense forests. It is the indicator species of scrub forest. They are very habituated to live near human settlements. They freely enter cultivation land and damage the crops. They feed till the morning and again early in the evening.

They also defecate at regular 'defecation sites' forming large clumps and saucer shaped dropping. It is a way of communication and the demarcation of territory.

IUCN Status

LC

WPA Status

Schedule- III

Group

Herbivores

Activity



Social Unit

Males are solitary in non breeding season. Normally a group consists of 5-7 individuals.

Breeding Season

Mating takes place during July to September





Chinkara / Indian Gazelle (*Gazella bennettii*)

चिंकारा (मराठी)



Size

Weight

Average:
15 to 23 kg

Body Length

90 to 110 cm

Height (SL)

24 to 32 cm

Hoof mark



The Indian gazelle is characterized by sandy or yellowish brown colour. Underpart and inner part of legs are whitish. Tail is dark brown set in the middle of two white streaks. Black beautiful eyes with white and dark rufus streaks down the face. Both male and female have horns. Horns are straight with prominent rings and tips are slightly turned out. Female horns are smaller than male horns being almost half in size.

It is a diurnal antelope and some times active just after dark.

Chinkara males are polygamous. Males are highly territorial and defend their territories.

Indian gazelles are better adapted to browsing than grazing, but they can consume legumes and grasses in large quantities. Their diet typically consists of grasses, various leaves, crops and fruits such as pumpkins and melons.

IUCN Status

LC

WPA Status

Schedule- I

Group

Herbivores

Activity



Social Unit

Lives in small groups consisting of 5 to 6 individuals

Breeding Season

March to end of April





Rhesus macaque (*Macaca mulatta*)

माकड (मराठी), डुगी (कोरकु)



Size

Weight

Male
8 to 10 Kg

Female
5 to 8 kg

Body Length

Male
48 to 68 cm

Female
47 to 53 cm

Tail
19 to 29 cm

These are medium sized and most widespread of all Indian primates. These are brown and grey in color and pink faced. Their tails are of medium length in comparison to the body.

Rhesus macaques are primarily herbivores feeding on leaves fruits and also roots, seeds, bark and buds. Sometimes they also eat termites, insect larvae, grasshoppers and beetles.

They are diurnal and both arboreal and terrestrial.

Rhesus macaques have developed specialized communication sounds. They are also habitual to living near human settlements.

They are highly social in behaviour. Alpha males are dominant and when in threatened situation they show aggression by shaking the tree branches.

IUCN Status

LC

WPA Status

Schedule- II

Group

Herbivores

Activity



Social Unit

Live in large troops. Avg. members are 25 to 30 or more

Breeding Season

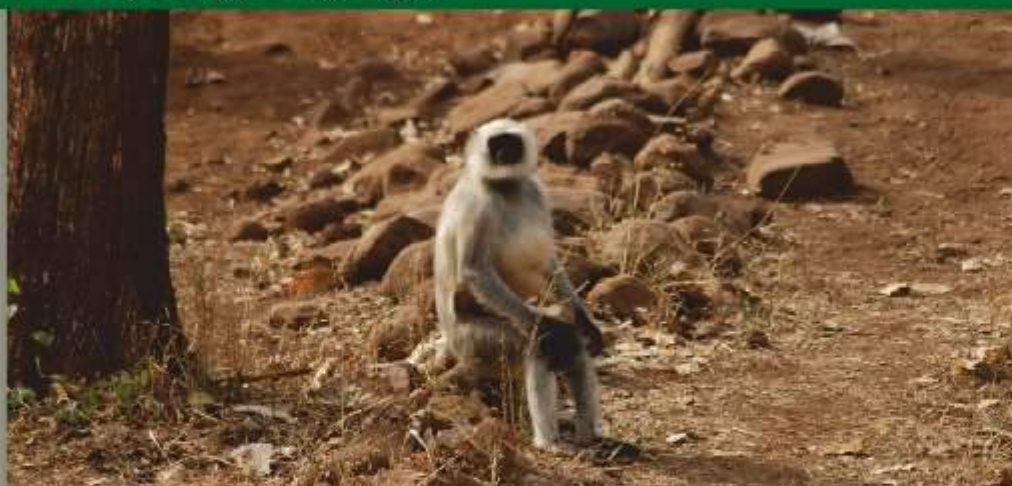
All year





The Common Langur (*Semnopithecus entellus*)

वानर (मराठी), सारा (कोरकु)



Size

Weight

Male

15 to 18 Kg

Female

11 to 15 kg

Body Length

Male

70 to 75 cm

Female

55 to 60 cm

Tail

68 to 96 cm

Height (SL)

55 to 65 cm

It is the most widespread langur in Indian sub continent. It is long-limbed, long tailed and its most distinctive character is its black face. It is overall yellowish brown or pale orange ventrally suffused with buff on the chest. The tail is long and flower looped.

The male langurs possess a harem and does not tolerate any sub adult or even very young males in the same troop.

The hanuman langur are purely diurnal. They sleep during night on trees. When resting on trees, they generally prefer the highest branches.

Langurs are primarily herbivores. They feed on fruits, leaves and leaf buds. They also eat bamboo shoots and some times they feed on insect larvae.

IUCN Status

LC

WPA Status

Schedule- II

Group

Herbivores

Activity



Social Unit

Live in large troops. Avg. members are 25 to 30 or more.

Breeding Season

All year





Indian Wild Pig (*Sus scrofa*)

जंगली डुक्कर (मराठी), जंगली सुवर (हिन्दी), सुकडी (कोरकु), पद्दी (गोंड)



Size

Weight

Avg:
45 to 320 Kg

Body Length

Average
90 to 200 cm

Height (SL)

55 to 110 cm

Hoof mark



The Indian wild pig is bulky massively built with short thin legs. It has short muzzle, with the snout disc being perpendicular to the head. The ears are large. The fur is brown, tinged with black and grey colour. They have stiff mane of 'hog bristle' along its neck. The structure of the head is well suitable for digging. The head acts as a plough and muscles of the neck are very powerful used for digging up high amount of soil. The eyes are small and set deeply. The males have well developed canine teeth. The teeth reach almost up to 20-30 cm.

The Indian wild pig is a very versatile omnivore. It feeds on rhizomes, roots, tubers and bulbs which also has seeds, berries, nuts. Its also feeds on leaves, barks and bamboo shoots and they also feed on earth worm, insect larvae, molluscs, fish, bird eggs, rodents, lizards and even snakes. In most of the human settlement area they are responsible for crop damage. In some cases government has declared this species as a vermin.

IUCN Status

LC

WPA Status

Schedule- III

Group

Omnivores

Activity



Social Unit

Lives in large groups called as "sounders of Wild Pig" Avg. members per group is 25 to 30 or more

Breeding Season

Mating takes place during July to September





Pangolin (*Manis crassicaudata*)

खवले मांजर (मराठी)



Size

Weight

Average:
9-11 kg

Body Length

Average
60 to 70 cm

The Pangolin is also called as the 'ant eater'. This name originates from their feeding habit. It is a toothless mammal. The body is covered by an armour of protecting scales. In defense, the animal curls itself into an armour ball and rolls to escape.

The pangolin's eyes are small, ears are slits in the skin with small ear pinna. The nose is rounded, with large nostrils. The tongue is long and sticky. The hind legs have a calloused sole and they have short, blunt nails on their five toes. The tail is long thick and covered with scales.

They mostly feed on ants and termites. It is the world's most trafficked mammal. Yet it is still a data deficiency species as per IUCN list.

IUCN Status

NT

WPA Status

Schedule- I

Group

Insectivores

Activity



Social Unit

Solitary or in pair

Diet / Prey



Breeding Season

Data not available

Pangolin





Indian Giant Flying Squirrel (*Petaurista philippensis*)

उडती खार (मराठी), होलार (कोरकु), मलानाई (गोंड)



IUCN Status

LC

WPA Status

Schedule- II

Group

Herbivores

Activity



Social Unit

Solitary

Breeding Season

Data not available

Size

Body Length

Average
32 to 49 cm
Tail
38 to 44 cm

This is the only known flying mammal after a bat. Actually flying squirrels do not fly. It just glides from one place to another at measurable distances with the help of elastic skin called as patagium, stretched between the wrist and the ankle.

It is active just after dusk, when they forage on the canopy of the trees. They consume mostly petioles but also feed on tender leaves, seed, fruits and flowers. They are fully nocturnal. In day time they rest in hollow cavities of trees. They are mostly solitary or sometimes in pairs but will be social where food is abundant.

It is distributed almost all across the Melghat landscape. Semadoh NIC is the best place to see it after dark.





Madras or Southern tree shrew (*Anathana ellioti*)

वृक्ष चिंचुद्री (मराठी)

Size

Weight

Average
160 g

Body Length

Body Length:

17.5 - 20 cm

Tail Length:

16 - 19 cm

Diet / Prey



Its looks like a squirrel. Tree shrews are chocolate-brown in colour with pale markings around its eyes. Their most characteristic feature are the white shoulder stripes. The body is slender with a long tail. It is terrestrial and some times climbs on the trees. It is omnivore, feeding on insects, small vertebrates, seeds and fruits.

It is diurnal. It's nest is made in the hollow cavities of a tree trunk.

IUCN Status

LC

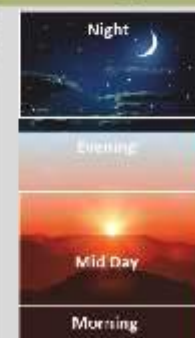
WPA Status

Schedule-II

Group

Omnivores

Activity



Social Unit

Solitary

Three Striped Palm Squirrel (*Funambulus palmarum*)

खारुताई (मराठी), गिलहरी (हिन्दी), डुर (कोरकु)

Size

Weight

2 - 4 kg

Body Length

Average

12 - 15 cm

Tail

14 to 16 cm

Breeding Season

March & May

Social Unit

Solitary/Pair

Diet / Prey



Indian Palm Squirrels are also known as the 3 striped squirrel due to the mix of dark and white stripes on the back. The Indian palm squirrel can be found nesting in the tree tops of exotic trees.

Unlike other species of squirrel, the Indian palm squirrel does not hibernate in winter but Instead it will only emerge from the warmth of their nests during the afternoon on sunny days.

IUCN Status

LC

WPA Status

Unlisted

Group

Solitary/Pair

Activity





Black Napped Hare / Indian Hare (*Lepus nigricollis*)

जंगली ससा (मराठी), खरगोश (हिन्दी), कॅलीच (कोरकु), मोलोल (गोंड)

Size

Weight

Average:
1.8 to 3.6 kg

Body Length

Average
33 to 53 cm



It is the most commonly sighted animal in Melghat. It is reddish brown with black hairs mixed throughout its face and dorsal part. Underpart is whitish. The most significant characteristic is its long, ovate ears with clear venation that stands out against the skin of the ears. The hind legs are long and fluffy.

It is found in all types of habitat, but mostly prefer the grasslands and shrubby forests. It is also found in and around the agricultural areas. It is purely nocturnal. During day time, it rests in borrows. Its comes out after the dark for foraging. It mostly feeds on grass, roots, leaves and germinating saplings. Flowering plants are more in their diet as compared to others.

IUCN Status

LC

WPA Status

Schedule- IV

Group

Herbivores

Activity



Social Unit

Solitary/ Pair

Breeding Season

Throughout the year but peak season is monsoon.



Caught on camera trap



Indian Flying Fox (*Pteropus giganteus*)

वटव्हागुळ (मराठी), चमगादड (हिन्दी), उल्टा (कोरकु)



Size

Weight

Average:
1.6 to 2 kg

Body Length

15.2 to 18.3 cm

Forearm Length

19.8 to 30 cm

It is the most common bat found in Melghat. It chooses Ficus and Eucalyptus trees for roosting in most areas. It has chestnut- brown head with large black, pointed ears and huge black wings, long snout and large eyes. It looks like a fox. Hence, it has got its name as 'flying fox'.

Like other bats, flying foxes are also nocturnal. They rest in the day time on roosting trees in hanging position and are active after dark. They live in colonies. Their characteristic is that they constantly groom themselves. They feed only on the juicy and discarded chewed fruits. These bats can drink water during flight over water bodies.

There are many roosting places in Melghat which are well known for their colonies, like Ficus trees at Kelpani meadows in Dhargad range of Akot wildlife division.

IUCN Status

LC

WPA Status

Schedule- V

Group

Omnivores

Activity



Social Unit

Roosts in large colonies consisting of hundred to thousand individuals





Bhimkund Waterfall near Chikhaldara

REPTILES

(Snakes, Lizards and Geckos)



Russell's Viper

What is the importance of snakes in the ecosystem?

Snakes are important elements in their native environments, regulating the populations of their prey. They are exclusively carnivores, so they are predators but sometimes they can be prey for other predators, including other snakes. They can present a threat when they are an invasive species in an ecosystem. Both, the introduction and removal of snakes can have unforeseen effects on an ecosystem.

As carnivores, snakes keep the numbers of their prey down. Rodents provide the best example as they reproduce exponentially in the absence of snakes. While this is true in a natural environment, it is particularly true in an artificial environment like any kind of food storage area.

The University of Nebraska estimates that mice cause \$20 million in damages annually in Nebraska. Snakes slowly prowl to hunt and are able to enter burrows and tight spaces where other predators like cats or hawks can't go and traps can't be set.

Since snakes aren't always the top predator, they can become prey for higher predators. In that role, they pass the bounty of their prey's population boom up the food chain. When a large prey population attracts and sustains a large snake population, those snakes become plentiful prey for birds like hawks and herons or mammals like skunks and raccoons. Some snakes specialize in preying on other snakes, like the king snake, which can prey on rattlesnakes because they are immune to rattlesnake venom.

Snakes can play a role in the complicated web of inter-species relationships. For example, timber rattlesnakes in the eastern U. S. prey upon mice who are hosts to black-legged ticks. Those ticks are a vector for Lyme disease, a bacterial infection. When the snakes reduce the number of mice, the prevalence of Lyme disease in the environment is reduced.

Alex Silbajoris; Updated April 25, 2017,
www.sciencing.com

Indian Rock Python

(*Python molurus*)

अजगर



Non-Venomous

Avg. Length

210-360cm

Avg. Weight

12 kg

Habitat



Prey / Diet



Breeding Season

January to March

Activity

Diurnal/Nocturnal

Most of the times it can be easily identified by checking its large size, dark irregular patches, pinkish head and slow locomotion. Body is thick with shiny smooth scales. Dorsal surface is full of irregular shaped patches of dark brown or blackish colour; ground dorsal is coloured white mixed with yellow, gray or brown.

Python eggs after hatching



Snakelets



Sometimes in threatened situations python vomit their food for fast mobilization.



snakes have up to 13 pairs of thermoreceptors arranged around their lips." (Shuker 2001:18)

Thermoreceptors:

"Although not as well known for infrared vision as the crotalids, another group of snakes, the boas and pythons, also have heat sensors. Instead of pits, however, these

Indian Rat Snake

(*Ptyas mucosa*)

धामन

Non-Venomous

Avg. Length

350 cm

Habitat



Prey / Diet



Breeding Season

Winter

Activity

Diurnal/Nocturnal



Very long body with dark colour patterns on the whole dorsal surface are its general identification features. Apart from these it can be identified precisely by checking the posterior body which is reticulated with black colour net like markings. Traditionally, people differentiate between cobra and rat snake by accepting rat snake to be a snake having head broader than neck or neck thinner than mid body.

Rat Snake Pair



About Sanke dance / light

Snake Dance



Rat snake perched on a tree.



Indian Cobra

(*Naja naja*)

नाग



The main identification characteristic feature of cobra species is the hood and marking on posterior of hood. The color of the cobra mostly depends on the geographical area. In the Melghat landscape cobras are mainly black to dark grey in colour. Its food mainly consists of small rodents and that is why cobras are frequently found near human settlements.



Venomous

Venom Type

Neurotoxic

Avg. Length

150 cm

Habitat



Prey / Diet



Breeding Season

March to July

Activity

Diurnal/Nocturnal

Common Krait

(*Bungarus caeruleus*)

मण्यार



The Common Krait is a highly venomous snake found in the Indian sub continent. Common Kraits are moderately slender medium sized snakes with smooth and glossy appearance. It is mostly active after dark. They habitually live near the water sources but are often also found in human settlements and that's why it is the most responsible snake for human deaths in India. The venom is intravenous LD50 and its value in mice is about 0.169 mg with an average venom yield per bite of 10 mg in dry weight. The Common Krait's venom contains mostly powerful pre and post synaptic neurotoxins that affect the nervous system inducing muscle paralysis.

Venomous

Venom Type

Neurotoxic

Avg. Length

39 inches

Habitat



Prey / Diet



Breeding Season

March and May

Activity

Nocturnal

Bamboo Pit Viper

(*Trimeresurus gramineus*)

चापडा / हरा नाग

Venomous

Venom Type

Neurotoxic

Avg. Length

150 cm

Habitat



Prey / Diet



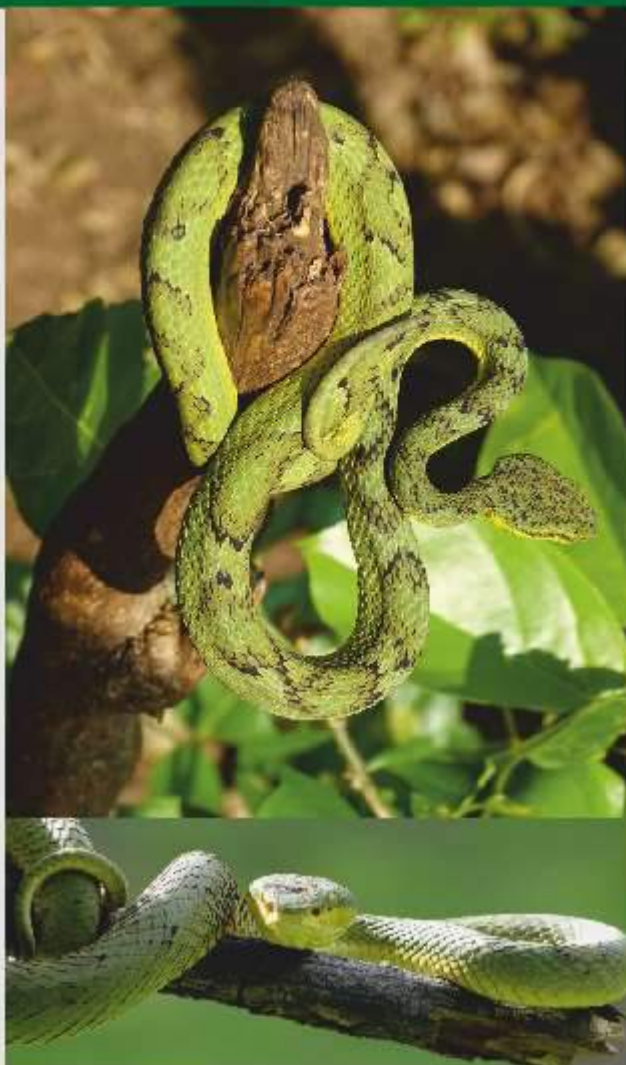
Breeding Season

March to July

Activity

Diurnal/Nocturnal

Body is somewhat slender, covered with lightly keeled scales. Upper body colour ranges from yellowish-green to bluish-green and is marked with rich or faint black irregular markings. Juveniles have more prominent markings as compared to adults. Its belly colour is mostly yellow, sometimes greenish-white also without any pattern. It has subcaudal paired scales. Its head is triangular, covered with very small scales; clearly broader than neck. Upper lip colour is similar like belly, i. e. yellow. Top of the head is patternless. Eyes have vertical pupil.

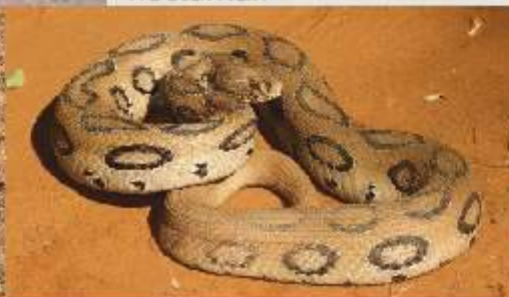


Russell's Viper

(*Daboia russelii*)



The Russell's viper is found through out India. Its head is distinct from the neck and body. It is flat, triangular and long. Colour may vary from dark brown, brownish-yellow to brownish-gray, with a dorsal pattern consisting of 3 rows of black or brown oval spots with black, white, on both edges. Sometimes the spots in middle fuse together to form more of a zig-zag pattern. Its is purely nocturnal.



घोणस

Venomous

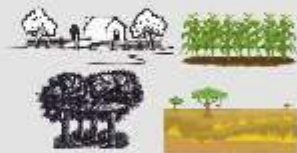
Venom Type

Neurotoxic

Avg. Length

39 inches

Habitat



Prey / Diet



Breeding Season

March to July

Activity

Diurnal/Nocturnal

Saw- scaled Viper

(*Echis carinaus*)



It's body is short, robust and stout. Highly keeled pointed scales of dry appearance are found over the dorsal body. Body colour ranges from light to dark brown, gray, brick red or reddish-brown. Light colour spots of light yellow or very light brown margined by dark colour are found on the whole dorsal surface; These spots may be more symmetric on mid body. These are usually guarded and connected by two undulating lines from both sides.

Saw-scaled Viper is a nocturnal species which remains active from late evening to late nights for foraging and other life activities. It can be seen at day time while basking in its habitat.

फुरसे

Venomous

Venom Type

Neurotoxic

Avg. Length

12-20 inches

Habitat



Prey / Diet



Breeding Season

March to July

Activity

Nocturnal

Green Vine Snake

(*Ahaetulla nasuta*)

हरणटोळ

Semi-Venomous

Avg. Length

39 inches

Habitat



Prey / Diet



Breeding Season

March to July

Activity

Diurnal



It is found across the Indian subcontinent except some part of Rajasthan (Thar Desert). It has a thin, long and slender body. Scales are smooth, long and obliquely arranged. Its dorsal colour is parrot green or bluish-green; Sometimes its brown variety is called isabellinus. Regular black inter scale patterns are present in oblique manner from neck to much of the mid body.

Its head is long, clearly broader than neck with extremely pointed snout. Upper lip colour is white or yellow. Oval shaped eyes have horizontal pupils.

The green vine snake is a diurnal and arboreal species which shows activity throughout the day at low to moderate heights. It is rarely seen on ground.

Brown Vine Snake

(*Ahaetulla pulverulenta*)

तपकिरी हरणटोळ

Semi-Venomous

Avg. Length

68 inches

Habitat



Prey / Diet



Breeding Season

March to July

Activity

Diurnal/Nocturnal



Its snouts is pointed, terminating in a dermal appendage which is longer than the eye, formed below by the nostril and covered above with numerous small scales or warts. The length of the snout, without the dermal appendage, is more than twice the diameter of the eye.

Common Cat Snake

(*Boiga trigonata*)



Its identification keys are the triangular head broader than neck, Y-shaped mark on head. It has vertical pupil, brown dorsal marked with black and white irregular markings.

It has thin and laterally flattened body. Scales are smooth and long in shape; top dorsal scales are larger than side scales. Dorsal colour is grayish-brown with black, dark brown and white markings in a zig-zag manner. These patterns may be in dense form according to regional morphology. It has a long and thin tail with a pointed tip typically like other tree snakes.

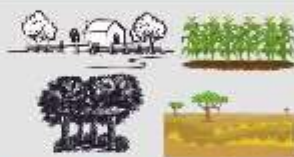
मांज्या

Semi-Venomous

Avg. Length

26 inches

Habitat



Prey / Diet



Breeding Season

August and September

Activity

Nocturnal

Forsten's Cat Snake

(*Boiga forsteni*)



Identification Keys:

It has patternless head and light colour cross bars in zig-zag manner. It is usually identified by it's larger size than other Boiga species.

फोस्टर्न मांज्या

Semi-Venomous

Avg. Length

91 inches

Habitat



Prey / Diet



Breeding Season

April - May

Activity

Nocturnal

Sand Boa

(*Gongylophis conicus*)

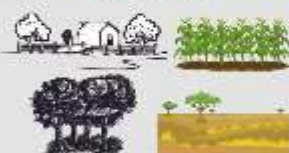
डुरक्या घोणस

Non-Venomous

Avg. Length

50 cm

Habitat



Prey / Diet



Breeding Season

July / August

Activity

Nocturnal



Its body is short and very thick. It has highly keeled scales (mainly in head and posterior body) found all over the body with smoother scales on side dorsal rows. Its body is full of irregular patches of dark colour which are usually continuous. Apart from these, smaller irregular shaped and discontinuous patches are also present on sides. Its ground colour is light brown, white or yellow which is always lighter than the colour of patches.

Earth Boa/Red Sand Boa

(*Eryx johnii*)

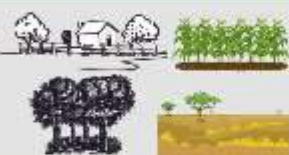
दुतोंड्या

Non-Venomous

Avg. Length

75 cm

Habitat



Prey / Diet



Breeding Season

August-
September

Activity

Nocturnal



Its body is slender with small, keeled but smooth appearing scales. Its body colour is almost uniform brown, reddish brown, reddish black, chocolate brown etc in adults. Colour in adults is found to be darker than in sub adults. Juveniles have reddish and blackish colour banded pattern, which is more prominent on the posterior body.

Banded Kukri

(*Oligodon arnesis*)

कुकरी



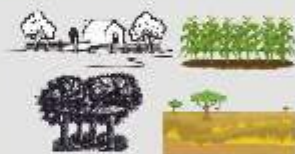
Its body is slender with glossy, subequal and smooth scales. Its dorsal colour is grayish-brown with blackish bands present from neck to end of the tail. These bands are broadest on top and tapers towards the flanks.

Non-Venomous

Avg. Length

35 cm

Habitat



Prey / Diet



Breeding Season

March to June

Activity

Diurnal/Nocturnal

Russell's Kukri

(*Oligodon taeniolatus*)

रसेलची कुकरी



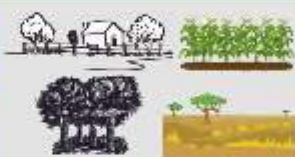
It is usually with typical chevron shaped markings on the top. It has a thick bent band joining eyes and a thick collar behind the arrow mark. These patterns may fuse in fully grown adults and appear patternless or with faint shades of dark and light brown. It has moderate eyes with rounded pupil.

Non-Venomous

Avg. Length

59 cm

Habitat



Prey / Diet



Breeding Season

March to May

Activity

Diurnal/Nocturnal

Common Banded Racer

(*Argyrogena fasciolata*)

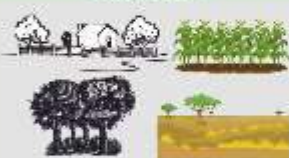
पट्टेरी धूळ नागीण

Non-Venomous

Avg. Length

39 inches

Habitat



Prey / Diet



Breeding Season

February to April

Activity

Diurnal



Its body is long, slender and covered with sub equal smooth scales. Two very distinct forms are found in life. Juveniles have rich bands, white bands guarded by black posteriorly over reddish-brown or grayish-brown or olive dorsal surface. Adults have reddish-brown or brown dorsal with faint or no bands of white colour.

Slender/Gunther's Racer

(*Coluber gracilis*)

चित्रांग नायकूळ

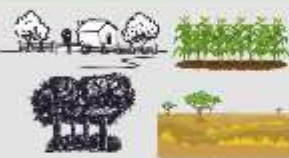
Non-Venomous

Neurotoxic

Avg. Length

40 cm

Habitat



Prey / Diet



Breeding Season

March and May

Activity

Diurnal



Its body is slender with sub equal and smooth scales. Its dorsal colour is dark grayish-brown which becomes faint on moving towards posterior of the body. Light grayish-brown or cream colour bars with black margin starts from the neck and may not remain interconnected with each other on dorsal sides by leaving triangular shaped black patches near the belly. These bars become faint on mid body and leave only black patches in the posterior one third region. Apart from this, a reddish tinge exists on mid body

Common Wolf Snake

(*Lycodon aulicus*)

कवड्या सर्प



Its snout is broad, much depressed, long, spatulate with the upper lip swollen and without canthus rostralis. Rostral shield is very low, broad, slightly bent backwards on the upper surface of the snout; anterior frontals are very small.

Non-Venomous

Avg. Length

30 cm

Habitat



Prey / Diet



Breeding Season

March - May

Activity

Nocturnal

Barred Wolf Snake

(*Lycodon striatus*)

पट्टेरी कवड्या



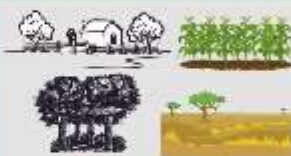
It has black or dark chocolate brown body with broad bands of white colour. These bands usually have yellow colour patches on the tail and can be easily identified by checking thick white bars over its glossy black dorsal body. White bands usually have vibrant yellow patches on top.

Non-Venomous

Avg. Length

48 cm

Habitat



Prey / Diet



Breeding Season

August

Activity

Nocturnal

Common Trinket Snake

(*Coelognathus helena helena*)

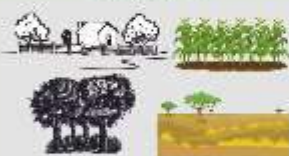
तस्कर सर्प

Non-Venomous

Avg. Length

70 cm

Habitat



Prey / Diet



Breeding Season

March - May

Activity

Diurnal/Nocturnal



It has faint brownish colouration. Its fore body has chain like patterns of light and dark brown which becomes plain towards half of the posterior body.

Montane Trinket Snake

(*Coelognathus helena monticollaris*)

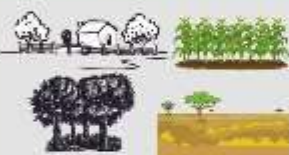
पहाडी तस्कर

Non-Venomous

Avg. Length

100 cm

Habitat



Prey / Diet



Breeding Season

March - April

Activity

Nocturnal



Its light brown body is often adorned with white and dark brown spots or with black and white transverse stripes. Its head is greenish brown with black markings. However, the true purpose of this colouration is camouflage.

Worm Snake

(*Ramphotyphlops braminus*)

वाळा सर्प



The head and tail are superficially similar as the head and neck are indistinct. Unlike other snakes, the head scales resemble the body scales. The eyes are barely discernible as small dots under the head scales. The tip of the tail has a small, pointed spur. Resembles with earth worm, World's smallest snake.

Non-Venomous

Avg. Length

12.5 cm

Habitat



Prey / Diet

Earth worm

Breeding Season

Activity

Diurnal

Beaked Worm Snake

(*Grypotyphlops acutus*)

चंचू वाळा सर्प



All features are almost similar to worm snake except that the mouth is shaped like a beak and it is longer in comparison to the worm snake.

Non-Venomous

Avg. Length

45 cm

Habitat



Prey / Diet

Earth worm

Breeding Season

Activity

Diurnal

Checkered Keelback Water Snake

(*Xenochrophis piscator*)

विरोळा / दिवड सर्प

Non-Venomous

Avg. Length

60 cm

Habitat



Prey / Diet



Breeding Season

December

Activity

Diurnal/Nocturnal



This snake's eyes are rather small and shorter than its distance from the nostril in the adult. Its rostral scale is visible from above. The internasal scales are much narrowed anteriorly and sub triangular with the anterior angle truncated and as long as the prefrontal scales.

Striped Keelback Snake

(*Amphiesma stolatum*)

नानेटी

Non-Venomous

Avg. Length

40 cm

Habitat



Prey / Diet



Breeding Season

Annually

Activity

Diurnal



It has a brownish back with continuous black bands existing which fuse to form blackish-brown posterior body. Two yellowish-brown stripes run longitudinally from neck to end of the tail where they become prominent. Thus it becomes very faint yellow when they intersect with blackish bands.

Green Keelback/Grass Snake

(*Macropisthodon plumbicolor*)

गवत्या सर्प



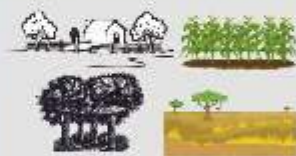
Its eyes are moderately large and the rostral scale is just visible from above. The suture between the inter nasals are as long as that between the prefrontals or a little shorter. The frontal scale is as long as its distance from the end of the snout or a little longer.

Non-Venomous

Avg. Length

55 cm

Habitat



Prey / Diet



Breeding Season

March - June

Activity

Nocturnal

Stout Sand Snake

(*Psammophis longifrons*)

जाड रेती सर्प



It is greyish above in front, browner behind. The scales are edged with black, particularly those of the vertebral region. The top of the head is uniform greyish brown. The scales below are edged with black and are greyish or yellowish.

Non-Venomous

Avg. Length

100 cm

Habitat



Prey / Diet



Breeding Season

Activity

Diurnal

Yellow Spotted Wolf Snake

(*Macropisthodon plumbicolor*)

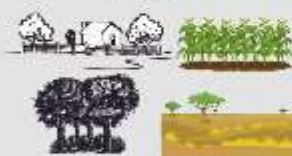
पिवळ्या ठिपक्यांचा कवडया

Non-Venomous

Avg. Length

55 cm

Habitat



Prey / Diet



Breeding Season

March - June

Activity

Nocturnal



Morphologically it bears yellow colour spots on the top of blackish dorsal. It can be identified by checking its yellow colour buttercup shaped spots on the top of dark dorsal body, often in the form of fine bands instead of spots.

Indian Smooth Snake

(*Psammophis longifrons*)

गजरा

Non-Venomous

Avg. Length

100 cm

Habitat



Prey / Diet



Breeding Season

Summer

Activity

Diurnal



Its body is slender with shiny smooth scales of same size. Dorsal colour is brown, grayish-brown or olive brown. All mid and front body scales have whitish edge. Side dorsal colours are usually darker than top with very first line of whitish colour; Gujarat specimens have almost blackish colour on the sides. Posterior body is pattern-less and have uniform brown or olive brown colour.

Black Headed Snake

(*Sibynophis subpunctatus*)

काळ्या डोक्याचा साप



Brown dorsal, black color head and patternless tail ending with pointed tip.

Non-Venomous

Avg. Length

30 cm

Habitat



Prey / Diet

Breeding Season

Activity

Nocturnal

Slender Coral Snake

(*Calliophis melanurus*)

पोवळा



Morphologically it can be identified by jet black head patched with white and dorsal body of plain grayish-brown colour followed by black tail which is also patched with brown or white and ends with blunt tip.

Venomous

Venom Type

Neurotoxic

Avg. Length

35 cm

Habitat



Prey / Diet



Breeding Season

Activity

Nocturnal

Brozeback Tree Snake

(*Dendrelaphis tristis*)

रूका सर्प

Non-Venomous

Avg. Length

100 cm

Habitat



Prey / Diet



Breeding Season

April

Activity

Diurnal



It has a very long and thin body and usually looks white from lateral side; predominantly brown dorsal body with blue scales on the edge of fore body side.

Shieldtail Snake

(*Uropeltis phipsonii*)

खापरखवल्या

Non-Venomous

Avg. Length

28 cm

Habitat



Prey / Diet



Breeding Season

March and May

Activity

Diurnal



Its body is small, slender and covered with glossy smooth scales. Dorsal colour ranges from brown to dark chocolate brown with more or less yellow dots. These dots become larger on side and underside.



Indian Egg Eater

भारतीय अंडीखाऊ सर्प



How to Avoid Snake Bites?



Always use a torch to light your foot path at night.

Wear protective gears when walking in jungle.



Close the rat holes in and around the house.

Use sticks when walking through tall grass.



Avoid camping in grassy areas.

Do not litter near camping sites.



Be careful where you step or sit.



Treatment : First Aid



1: Identify the bite

2: Wash the bite with soap and water as soon as possible. You should remove as much of the snake's spit as you can.



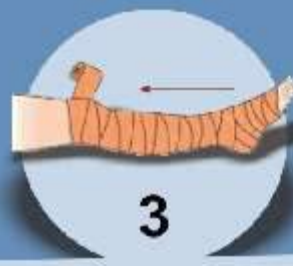
3: Keep the bitten area below the heart. This is done to slow the flow of the venom.



1



2



3



4

4: Tightly wrap a bandage two to four inches above the bite. If you can't reach medical care within 30 minutes, wrap a bandage around the bitten appendage. This is to assist in reducing the flow of venom. You should make it tight, but not too tight as to completely cut off the appendage's circulation. That will only cause tissue damage.

5: If you have a snake bite kit, place the suction device over the bite to help draw the venom out of the wound. Leave on for a maximum of ten minutes. If used properly, a suction device can remove up to 30% of the venom



Call for Medical Help



Striped Keel Back

Other Common Reptiles



Chameleon



Monitor Lizard



Fan Throated Lizard

Indian Rock Agama





Garden Lizard (*Female*)

Garden Lizard (*Male*)





Common Garden Skink

Cyrtodactylus Sp.







Butterflies

of Melghat



A group of butterflies is called a

‘Kaleidoscope’



About Butterflies

In the insect group butterflies and moths comes under a large group known as Lepidoptera (meaning, scaly wings). The common difference between a butterfly and a moth is the antennae. A butterfly's antennae are club-shaped with a long shaft and a bulb at the end. A moth's antennae are feathery or saw-edged. Butterflies and moths have many things in common, mainly scales that cover their bodies and wings. These scales are actually modified hairs. Butterflies and moths belong to the order Lepidoptera (from the Greek *lepis* meaning scale and *pteron* meaning wing). Butterflies tend to fold their wings vertically up over their backs. Moths tend to hold their wings in a tent-like fashion that hides the abdomen. Butterflies are typically larger and have more colourful patterns on their wings. Moths are typically smaller with drab-colored wings. Anatomically, moths have a frenulum, which is a wing-coupling device. Butterflies do not have frenulums. Frenulums join the forewing to the hind wing, so the wings can work in unison during flight.

Classification:

Presently, butterflies are classified into two super-families, of which Hesperioidea has all the skippers, while Papilionoidea includes the rest. Hesperioidea consists of a single family of Hesperidae (skippers), whereas Papilionoidea has four families, respectively; Papilionidae, Pieridae, Nymphalidae and Lycaenidae. (The book of Indian butterflies, Isaac Kehimkar, 2011)

Worldwide Status:

There are about 18000 species of butterflies in the world. India has 1501 species, of which 321 are skippers, 107 swallowtails, 109 whites and yellows, 521 brush footed butterflies and 443 blues.

Status in Melghat :

131 butterflies from different families was reported by Dr. Jayant Wadatkar, during and after his research work on butterflies of Satpuda. Out of 131, 12 belongs to Papilionoidea family, 20 from Pieridae, 41 from Nymphalidae and 37 Lycaenidae and 21 from Hesperidae family.

Protected Species:

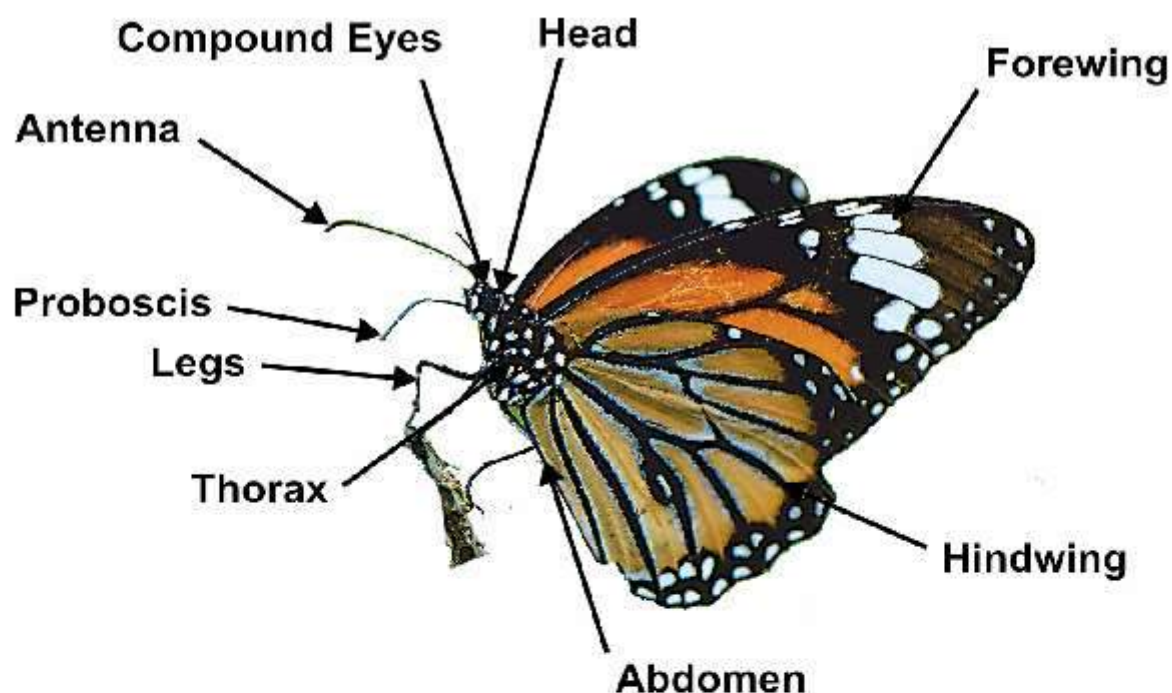
Danaid eggfly is schedule-1 species





General structure of Butterflies:

The body of the butterfly is divided in 13 segments but superficially consist of head, thorax and abdomen. The head consists of a pair of antennae, a pair of compound eyes which consists of hexagonal lens covering the visual cones or ommatidia. The long tubular proboscis is made up of two highly modified mouth parts holding series of hooks and spikes, just like the zip-chain, which helps during the sucking of nectar. The head is attached with a thin, delicate, short membranous neck. The thorax is basically divided in three segments but looks like composite of single segment. Each segment carries a pair of legs on ventral side and the first two segments carry a pair of wings. Each wing of the butterfly is made up of two closely pressed thin membranes, supported by a network of "veins" running between them. The membranes are covered by multiple colour multiform scales. The arrangement of the scales define the pattern and characteristics of markings. An adult butterfly has a cylindrical slim and fairly long abdomen which contains the vital organs.



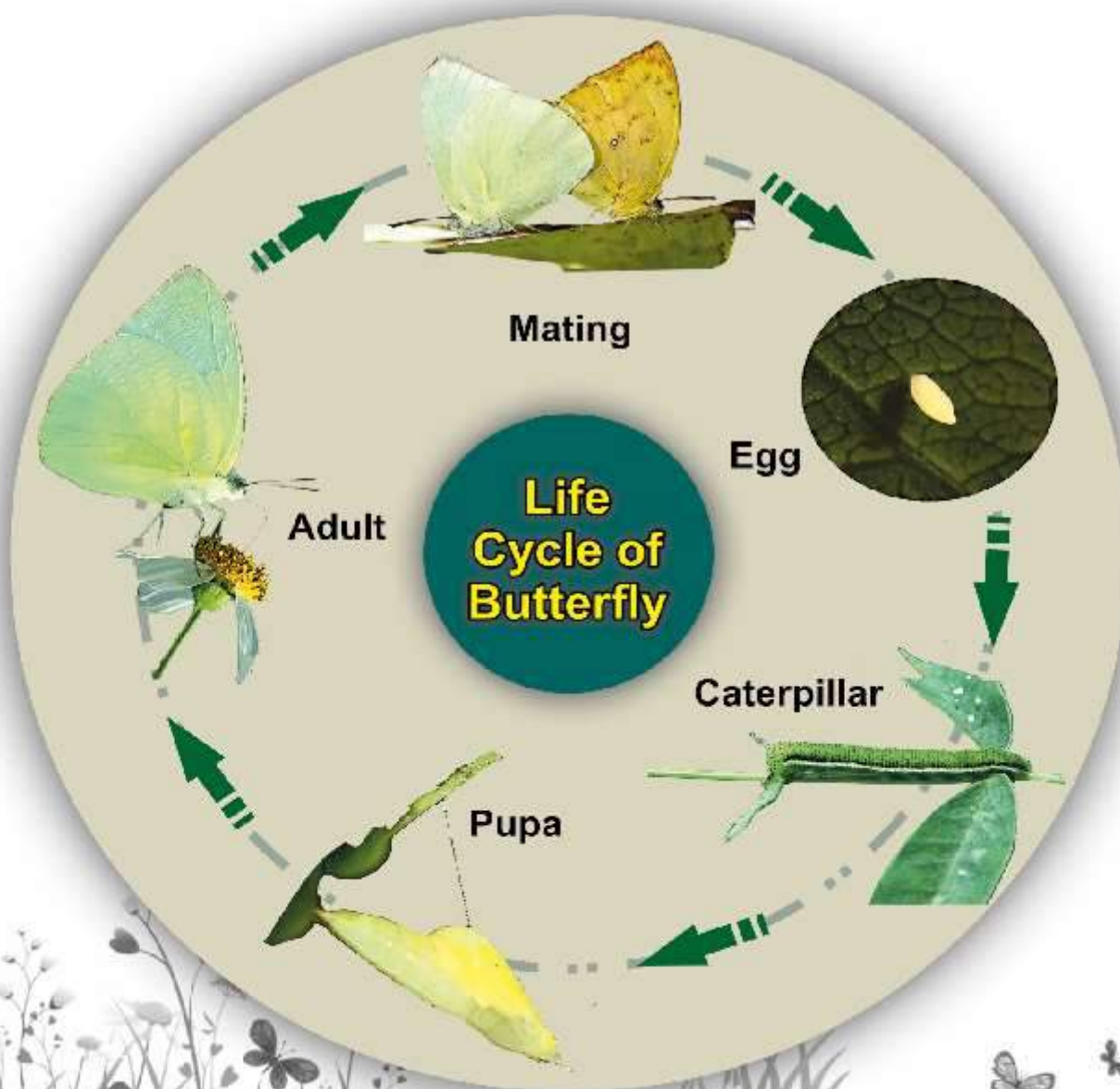
Body Parts of Butterfly



Life Cycle:

The life span of a butterfly undergoes a complete metamorphosis which consists of four stages; eggs, caterpillar, pupa and adult.

After mating the female lays eggs on selected food plant leaves in different batches. The shapes, sizes and texture of eggs differs according to species. The fertilised eggs will take three days to one week to hatch. The caterpillar emerges out after hatching of the eggs by biting through the egg shells. After it comes out from the eggs, the caterpillar starts eating the buds and leaves. It almost becomes an eating machine after which the full grown caterpillar ceases to feed and begins to wander restlessly on the food plant or other specific places. Butterflies emerging from pupal condition takes few days. It differs from species to species. Beautiful butterflies come out from the pupa which is a fascinating event in the nature.





Mud Puddling....

Why do butterflies group together?

Butterflies and moths regularly congregate around mud, dung and even blood, tears or decaying flesh! This behaviour is called puddling, and is mostly seen in male butterflies. That's because males incorporate those extra salts and minerals into their sperm. The term "puddling" refers to the process in which butterflies 'sip' from puddles of water, mud, dung or carrion on the ground.

Butterflies get most of their nutrition from flower nectar. Though rich in sugar, nectar lacks some important nutrients the butterflies need for reproduction. For these, butterflies visit puddles. By sipping moisture from mud puddles, butterflies take in salts and minerals from the soil.



Lime Butterfly
(*Papilio demoleus*)
Wingspan: 80-100 mm
Status in Melghat: VC

Family:
PAPILIONIDAE
Sub Family:
PAPILIONINAE

Crimson Rose
(*Pachliopta hector*)
Wingspan: 90-110 mm
Status in Melghat: VR



Common Rose
(*Pachliopta aristolochiae*)
Wingspan: 80-110 mm
Status in Melghat: NR

Common Mormon
(*Papilio polytes*)
Wingspan: 90 - 100 mm
Status in Melghat: C

Common Jay
(*Graphium doson*)
Wingspan: 80-90 mm
Status in Melghat: VC





Malabar Rose

(Pachliopta pandiyan)

Wingspan: 100-130 mm

Status in Melghat : VR

Family:
PAPILIONIDAE

Sub Family:
PAPILIONINAE

Tailed Jay

(Graphium Agamemnon)

Wingspan: 85-100 mm

Status in Melghat: NR



Common Bluebottle

(Graphium sarpedon)

Wingspan: 80 - 90 mm

Status in Melghat:

Spot Swordtail

(Graphium nomius)

Wingspan: 75-90 mm

Status in Melghat: LC

Blue Mormon

(Papilio polymnestor Carmer)

Wingspan: 120 - 150 mm

Status in Melghat:





Common Gull

(*Cepora nerissa*)

Wingspan: 40-65 mm

Status in Melghat: C

Family:
PIERIDAE
Sub Family:
PIERINAE

Pioneer

(*Anophaeis aurota*)

Wingspan: 40-55 mm

Status in Melghat: C



Common Albatross

(*Appis albina darada*)

Wingspan: 60-75 mm

Status in Melghat: VR

Common Jezebel

(*Delis eucharis*)

Wingspan: 66-83 mm

Status in Melghat: C

Great Orange Tip

(*Hebomoea glaucippe*)

Wingspan: 80-100 mm

Status in Melghat: R





Lemon Emigrant

(Catopsilia pomona)

Wingspan: 60-70 mm

Status in Melghat: C



African Emigrant

(Catopsilia florella)

Wingspan: 55-65 mm

Status in Melghat: NR

Family:
PIERIDAE
Sub Family:
PIERINAE



Small Grass Yellow

(Eurema brigitta)

Wingspan: 30-40 mm

Status in Melghat: VC

Mottled Emigrant

(Catopsilia pyranthe)

Wingspan: 50-70 mm

Status in Melghat: VC

Common Grass Yellow

(Eurema hecabe)

Wingspan: 40-50 mm

Status in Melghat: VC





Spotless Grass Yellow

(Eurema laeta)

Wingspan : 30-45 mm

Status in Melghat: VC



Three-spot Grass Yellow

(Eurema blanda)

Wingspan: 40-45 mm

Status in Melghat: NR

Family:
PIERIDAE
Sub Family:
PIERINAE



Crimson Tip

(Calotis danoe Fab.)

Wingspan: 40- 50 mm

Status in Melghat: R

White Orange Tip

(Ixias marianne)

Wingspan: 50-55 mm

Status in Melghat: NR

Yellow Orange Tip

(Ixias pyrene)

Wingspan: 50-70 mm

Status in Melghat: NR





Small Orange Tip

(Calotis etrida)

Wingspan: 25-45 mm

Status in Melghat: VR



Small Saloman Arab

(Calotis amata Fab.)

Wingspan: 35- 50 mm

Status in Melghat: VR

Family:
PIERIDAE
Sub Family:
PIERINAE



Large Saloman Arab

(Calotis fausta Oliver)

Wingspan: 40-50 mm

Status in Melghat: VR

Common Wanderer

(Pareronia valeria)

Wingspan: 65- 80 mm

Status in Melghat: R

Psyche

(Leptosia nina Fab.)

Wingspan: 35 -50 mm

Status in Melghat: VR





Tiny Grass Blue

(Zizula hylax)

Wingspan: 19-26 mm

Status in Melghat: R



Grass Jewel

(Freyeria trochylus)

Wingspan: 15-22 mm

Status in Melghat: R

Family:
LYCAENIDAE



Lime Blue

(Chilades laius)

Wingspan: 26- 30 mm

Status in Melghat: NR

Lesser Grass Blue

(Zizinia otis)

Wingspan: 19-26 mm

Status in Melghat: VR

Dark Grass Blue

(Zizeeria karsandra)

Wingspan: 18-24 mm

Status in Melghat: NR





Pale Grass Blue
(Pseudozizeeria maha)
 Wingspan: 26-30 mm
 Status in Melghat: R



African Babul Blue
(Azanus jessons)
 Wingspan: 21-26 mm
 Status in Melghat: R

Family:
LYCAENIDAE



Bright Babul Blue
(Azanus ubaldus)
 Wingspan: 20-25 mm
 Status in Melghat: R

Common Pierrot
(Castalius rosimon)
 Wingspan: 24-34 mm
 Status in Melghat: VR

Common Hedge Blue
(Calastрина puspa Moore)
 Wingspan: 28-35 mm
 Status in Melghat: R





Gram Blue

(*Euchrysops cnejus*)

Wingspan: 25-33 mm

Status in Melghat: C

Family: LYCAENIDAE

Pea Blue

(*Lampides boeticus*)

Wingspan: 24-36 mm

Status in Melghat: C



Common Cerulean

(*Jamides celeno*)

Wingspan: 25-30 mm

Status in Melghat: C

Plum Judy

(*Abisara echerius*)

Wingspan: 40-50 mm

Status in Melghat: C

Dark Cerulean

(*Jamides bochus*)

Wingspan: 25-34 mm

Status in Melghat: R





Zebra Blue

(*Leptotes plinius*)

Wingspan: 22-30 mm

Status in Melghat: VC



Gauva Blue

(*Deudorix isocrates*)

Wingspan: 34-50 mm

Status in Melghat: R

Family:
LYCAENIDAE



Rounded Pierrot

(*Tarucus nara*)

Wingspan: 23-28 mm

Status in Melghat: VC

Common Silverline

(*Spindasis vulcanus F.*)

Wingspan: 26-34 mm

Status in Melghat: R

Dark Pierrot

(*Tarucus ananda*)

Wingspan: 22-28 mm

Status in Melghat: VR





Angled Pierrot

(*Caleta caleta* Hewitson)

Wingspan: 26-32 mm

Status in Melghat: R

Family: LYCAENIDAE

Red Pierrot

(*Tolicada nyseus*)

Wingspan: 30-36 mm

Status in Melghat: VR



Banded Blue Pierrot

(*Discolampa ethion* Westwood)

Wingspan: 26-30 mm

Status in Melghat: VR

Scare Shot Silverline

(*Spindasis elima* Moore.)

Wingspan: 28-42 mm

Status in Melghat: VR

Forget -me-not

(*Catochrysops strabo*)

Wingspan: 25-35mm

Status in Melghat: C





Plains Cupid

(*Chilades pandava*)

Wingspan: 25-35 mm

Status in Melghat: C

Family:
LYCAENIDAE

Indian Cupid

(*Everes lacturnus*)

Wingspan: 22-28 mm

Status in Melghat: R



Small Cupid

(*Chilades parrhasius*)

Wingspan: 25-35 mm

Status in Melghat: C

Large Oak Blue

(*Arhopala amantes*)

Wingspan: 45-57 mm

Status in Melghat: NR

Club Silverline

(*Spindasis syama Peguanus M.*)

Wingspan: 26-40 mm

Status in Melghat: VR





Tailless Lineblue

(*Prosotas dubiosa sívoka Evans*)

Wingspan: 22-26 mm

Status in Melghat: R

Family: LYCAENIDAE

Slate Flash

(*Rapala manera*)

Wingspan: 30-33 mm

Status in Melghat: C



Indian Red Flash

(*Rapala jarbus Fab.)*

Wingspan: 33-41 mm

Status in Melghat: R

Common Lineblue

(*Prosotas nora C&R Felder*)

Wingspan: 18-25 mm

Status in Melghat: NR

Indigo Flash

(*Rapala varuna Horsfield*)

Wingspan: 28-29 mm

Status in Melghat: R





Centaur Oakblue

(Nilasera centaurus)

Wingspan: 48 mm

Status in Melghat: NR

Family:
LYCAENIDAE

Larvae of Common Cerulean





Comm. Evening Brown

(Melanitis leda)

Wingspan: 60-80 mm

Status in Melghat: VC



Dark Evening Brown

(Melanitis phedima)

Wingspan: 60-85 mm

Status in Melghat: C

Family:
NYMPHALIDAE



Common Bushbrown

(Mycalesis bunnmerseus)

Wingspan: 38-55 mm

Status in Melghat: VC

Striped Tiger

(Danaus genutia)

Wingspan: 72-100 mm

Status in Melghat: C

Darkbrand Bushbrown

(Mycalesis mineus L)

Wingspan: 40-50 mm

Status in Melghat: VC





Common Tree Brown

(Lethe rohria)

Wingspan: 58-70 mm

Status in Melghat: NR



Bamboo Tree Brown

(Lethe europa)

Wingspan: 65-75 mm

Status in Melghat: NR

Family:
NYMPHALIDAE



Banded Tree Brown

(Lethe confuse Aurivill)

Wingspan: 50-60 mm

Status in Melghat: R

Commander

(Moduza procris procris)

Wingspan: 60-75 mm

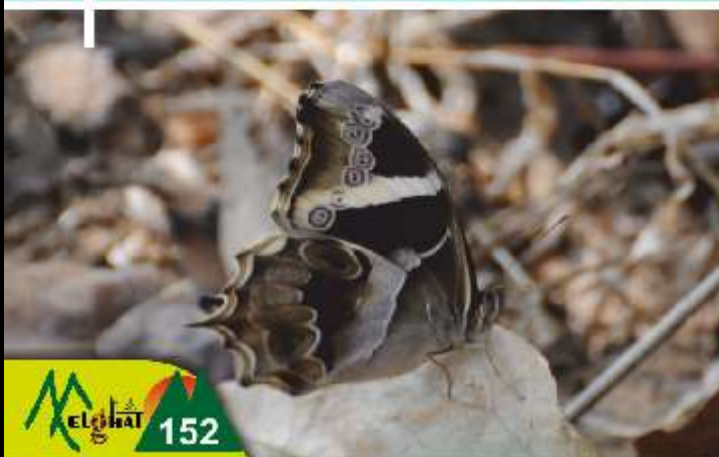
Status in Melghat: C

Tamil Bush Brown

(Mycalesis subdita)

Wingspan: 65-70 mm

Status in Melghat: R





Common Three Ring

(*Ypthima asterope*)

Wingspan: 30-37 mm

Status in Melghat: C

Family: NYMPHALIDAE

Common Four Ring

(*Ypthima asterope*)

Wingspan: 30-40 mm

Status in Melghat: VR



Common Five Ring

(*Ypthima baldus*)

Wingspan: 32-48 mm

Status in Melghat: VR

Chocolate Pansy

(*Precis iphita*)

Wingspan: 55-80 mm

Status in Melghat: VC

Lemon Pansy

(*Junonia lemonias*)

Wingspan: 40-60 mm

Status in Melghat: VC



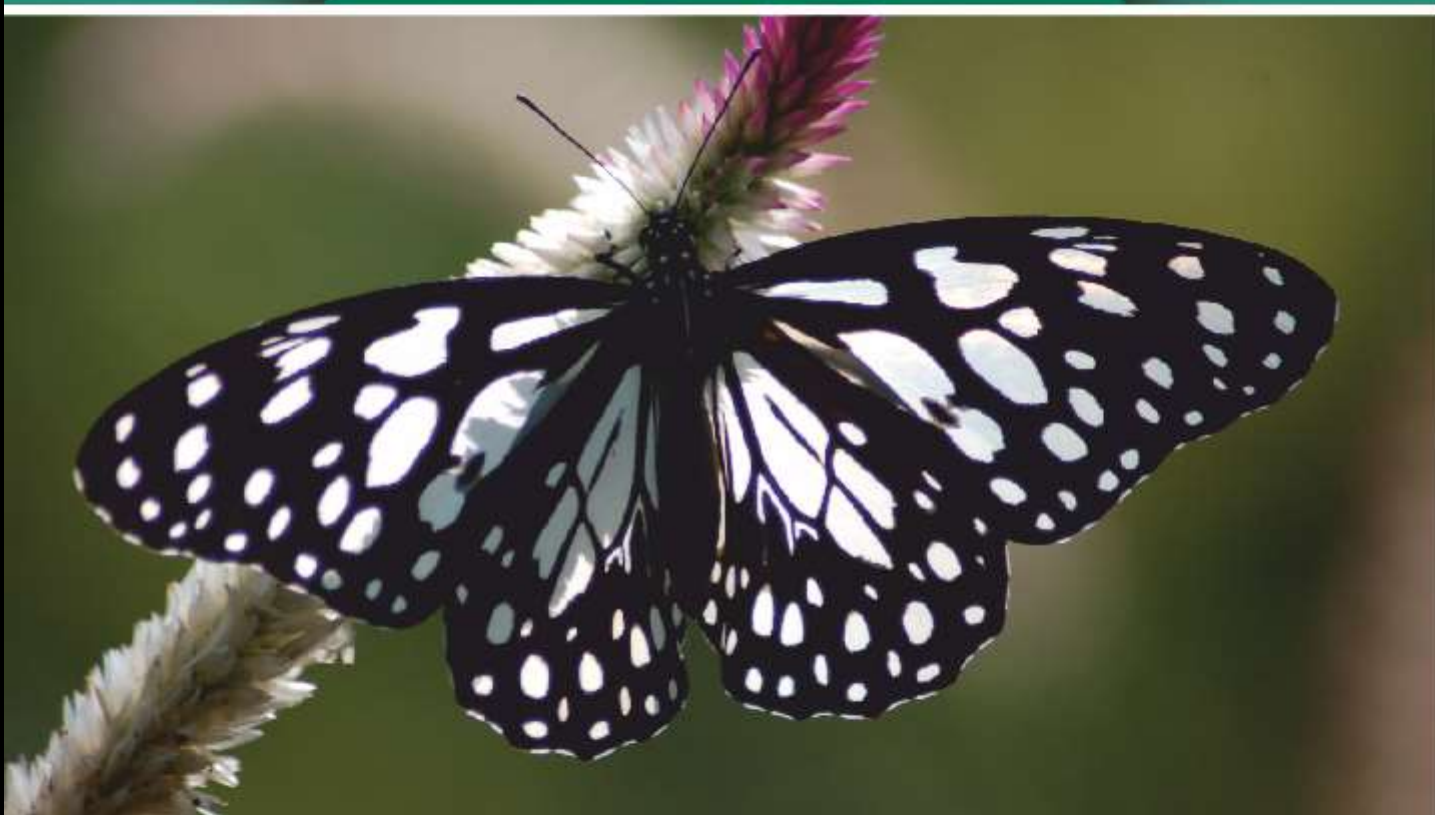


Yellow Pansy
(*Junonia hierta*)
Wingspan: 45-60 mm
Status in Melghat: C



Blue Pansy
(*Junonia orithya*)
Wingspan: 45-60 mm
Status in Melghat: VC

Family:
NYMPHALIDAE



Grey Pansy
(*Junonia atlites*)
Wingspan: 55-65 mm
Status in Melghat: R

Blue Tiger
(*Tirumala limniace*)
Wingspan: 90-100 mm
Status in Melghat: C

Peacock Pansy
(*Junonia almana*)
Wingspan: 60-65 mm
Status in Melghat: NR





Dark Blue Tiger
(*Tirumala septentrionis*)
Wingspan: 75-95 mm
Status in Melghat: R



Glassy Tiger
(*Parantica aglea*)
Wingspan: 70-85 mm
Status in Melghat: VR

Family:
NYMPHALIDAE



Common Leopard
(*Phalanta phalantha*)
Wingspan: 50-60 mm
Status in Melghat: VC

Plain Tiger
(*Danaus chrysippus*)
Wingspan: 70-80 mm
Status in Melghat: VC

Baronet
(*Euthalia nais*)
Wingspan: 60-70 mm
Status in Melghat: VC





Tawny Castor

(Acraea violae)

Wingspan: 50-60 mm

Status in Melghat: VC



Common Castor

(Ariadne merione)

Wingspan: 45-60 mm

Status in Melghat: NR

Family:
NYMPHALIDAE



Angled Castor

(Ariadne ariadne)

Wingspan: 45-60 mm

Status in Melghat: C

Joker

(Byblia ilithyia)

Wingspan: 45-55 mm

Status in Melghat: LC

Painted Lady

(Cynthia cardui)

Wingspan: 55-70 mm

Status in Melghat: C





Danaid Eggfly
(*Hypolamnas misippus*)
Wingspan: 70-85 mm
Status in Melghat: NR



Great Eggfly
(*Hypolamnas bolina*)
Wingspan: 70-110 mm
Status in Melghat: C

Family:
NYMPHALIDAE



Common Baron
(*Euthalia aconthea*)
Wingspan: 55-80 mm
Status in Melghat: R

Common Indian Crow
(*Euploea core*)
Wingspan: 85-95 mm
Status in Melghat: VC

Common Nawab
(*Polyura athamas athamas*)
Wingspan: 60-75 mm
Status in Melghat: VR





Anomalous Nawab
(Polyura agraria Swinhoe)
 Wingspan: 95-100 mm
 Status in Melghat: NR



Common Sailer
(Neptis hylas varmona)
 Wingspan: 50-60 mm
 Status in Melghat: C

Family:
NYMPHALIDAE



Common Sergeant
(Parathyma perius Linn)
 Wingspan: 60-70 mm
 Status in Melghat: VR

Black Rajah
(Charaxes fabius)
 Wingspan: 70-80 mm
 Status in Melghat: R

Staff Sergeant
(Athyma selenophora)
 Wingspan: 55-57 mm
 Status in Melghat: VR





Blue Oakleaf
(Kallima horsfieldi Kollar)
 Wingspan: 85-110 mm
 Status in Melghat: VR

Family:
NYMPHALIDAE

Catterpillar of Plain Tiger





Spotted Small Flat

(Sarangesa purendra)

Wingspan: 25-35 mm

Status in Melghat: R



Common Spotted Flat

(Celaenorrhinus leucocera)

Wingspan: 45-55 mm

Status in Melghat: NR

Family:
HESPERIIDAE



Brown Awl

(Badamia exclamationis)

Wingspan: 50-55 mm

Status in Melghat: NR

Common Banded Awl

(Hasora chromus Car)

Wingspan: 45-50 mm

Status in Melghat: LC

Chestnut Bob

(Lambrix salsala)

Wingspan: 26-30 mm

Status in Melghat: R





Vindhyan Bob

(*Arnetta vindhiana* Moore)

Wingspan: 25-32 mm

Status in Melghat: R



Rice swift

(*Barbo cinnara*)

Wingspan: 30-36 mm

Status in Melghat: VC

Family:
HESPERIIDAE



Bush Hopper

(*Ampitia dioscorides*)

Wingspan: 22-28 mm

Status in Melghat: R

Bevan's Swift

(*Pseudobarbo bevani*)

Wingspan: 32-36 mm

Status in Melghat: C

Small Branded Swift

(*Pelopidas mathias*)

Wingspan: 32-38 mm

Status in Melghat: R





Pale Palm Dart

(Telicota colon)

Wingspan: 32-36 mm

Status in Melghat: R



Dark Palm Dart

(Telicota ancilla)

Wingspan: 33-36 mm

Status in Melghat: R

Family:
HESPERIIDAE



Grass Demon

(Edaspes falcus)

Wingspan: 40-48 mm

Status in Melghat: VR

Common Grass Dart

(Taractrocer maevis Fab.)

Wingspan: 22-28 mm

Status in Melghat: R

Common Dartlet

(Oriens gola Moore)

Wingspan: 24-28 mm

Status in Melghat: R





Malabar Spotted Flat
(*Celaenorrhinus ambareesa*)
Wingspan: 45-55 mm
Status in Melghat: VR

Family:
HESPERIIDAE

Common Spotted Flat
(*Celaenorrhinus leucocera*)
Wingspan: 45-55 mm
Status in Melghat: R



Tricolor Pied Flat
(*Pseudocoladenia indrani*)
Wingspan: 40-46 mm
Status in Melghat: VR

Indian Skipper
(*Spialia gaiba*)
Wingspan: 20-27 mm
Status in Melghat: VR

Small Branded Swift
(*Pelopidas mathias*)
Wingspan: 32-38 mm
Status in Melghat: R





Golden Angle
(*Odontoptilum ransonnetti*)

Wingspan: 35-45 mm

Status in Melghat: R

Family:
HESPERIIDAE

Catterpillar of Common Banded Awl





Checklist

Sr. No	Common Name	Scientific Name	Status
I	Family : HESPERIIDAE		
1	Spotted small flat	<i>Sarangesa purendra</i>	NR
2	Common Spotted flat	<i>Celaenorrhinus leucocera</i>	R
3	Brown Awl	<i>Badamia exclamationis</i>	NR
4	Common Banded Awl	<i>Hasora chromus</i> Car	LC
5	Chestnut Bob	<i>Lambrix salsala</i>	R
6	Vindhyan Bob	<i>Arnetta Vindhiana</i> Moore	R
7	Bush Hopper	<i>Ampitia dioscorides</i>	R
8	Rice swift	<i>Borbo cinnara</i>	VC
9	Bevan's Swift	<i>Pseudoborbo bevani</i>	C
10	Small Branded Swift	<i>Pelopidas mathias</i>	R
11	Common Grass Dart	<i>Taractrocera maevius</i> Fab.	R
12	Pale Palm Dart	<i>Telicota colon</i>	R
13	Dark Palm Dart	<i>Telicota ancilla</i>	R
14	Grass Demon	<i>Edaspes folcus</i>	VR
15	Common Dartlet	<i>Oriens gola</i> Moore	R
16	Indian Skipper	<i>Spialia galba</i>	VR
17	Malabar Spotted Flat	<i>Celaenorrhinus ambareesa</i>	VR
18	Common Spotted Flat	<i>Celaenorrhinus leucocera</i>	R
19	Tricolor Pied flat	<i>Pseudocoladenia indrani</i>	VR
20	Small Branded Swift	<i>Pelopidas mathias</i>	VR
21	Golden Angle	<i>Odontoptilum ransonnetti</i>	R



Checklist

Sr. No	Common Name	Scientific Name	Status
II	Family : PAPILIONIDAE		
22	Common Mormon	<i>Papilio polytes</i>	C
23	Lime Butterfly	<i>Papilio demoleus</i>	VC
24	Blue Mormon	<i>Papilio polymnestor</i> Carmer	R
25	Blue Mormon	<i>Papilio clytia</i> Linnr	R
26	Common Rose	<i>Pachliopta aristolochiae</i>	NR
27	Crimson Rose	<i>Pachliopta hactor</i>	VR
28	Malabar Rose	<i>Pachliopta pandian</i> Moore	VR
29	Tailed Jay	<i>Graphium agamemnon</i>	NR
30	Common Jay	<i>Graphium doson</i>	VR
31	Spot swordtail	<i>Graphium nomius</i>	LC
32	Common Blue Bottle	<i>Graphium sarpedon teredon</i>	VR
33	Blue Mormon	<i>Papilio polymnestor</i> Carmer	VR
III	Family : PIERIDAE		
34	Common Jezebel	<i>Delis eucharis</i>	C
35	Common Gull	<i>Cepora nerissa</i>	C
36	Pioncer	<i>Anaphaeis aurota</i>	C
37	Common Albatross	<i>Appias albina</i> Boisduval	VR
38	Lemon Emigrant	<i>Catopsilia pomona</i>	C
39	Mottled Emigrant	<i>Catopsilia pyranthe</i>	VC
40	African Emigrant	<i>Catopsilia florella</i>	NR
41	Small grass yellow	<i>Eurema brigitta</i>	VC
42	Common grass yellow	<i>Eurema hecabe</i>	VC
43	Spotless Grass Yellow	<i>Eurema laeta</i>	C
44	Three-spot Grass yellow	<i>Eurema blanda</i>	NR
45	Great Orange Tip	<i>Hebomoea glaucippe</i>	R
46	White Orange Tip	<i>Ixias marianne</i>	NR
47	Yellow Orange Tip	<i>Ixias pyrene</i>	NR
48	Small Orange Tip	<i>Calotis etrida</i>	VR





Checklist

Sr. No	Common Name	Scientific Name	Status
49	Crimson Tip	<i>Calotis danae</i> Fab.	R
50	Common Wanderer	<i>Pareronia valeria</i>	R
51	Small Saloman Arab	<i>Calotis amata</i> Fab.	VR
52	Large Saloman Arab	<i>Calotis fausta</i> Oliver	VR
53	Psyche	<i>Leptosia nina</i> Fab.	VR
IV	Family : LYCAENIDAE		
54	Tiny Grass Blue	<i>Zizula hylax</i>	R
55	Grass Jewel	<i>Freyeria trochylus</i>	R
56	Lesser grass Blue	<i>Zizinia otis</i>	VR
57	Dark Grass Blue	<i>Zizeeria karsandra</i>	NR
58	Pale Grass Blue	<i>Pseudozizeeria maha</i>	R
59	African Babul Blue	<i>Azanus jasons</i>	R
60	Bright Babul Blue	<i>Azanus ubaldus</i>	R
61	Common Hedge Blue	<i>Calastrina puspa</i> Moore	R
62	Gram Blue	<i>Euchrysops cnejus</i>	C
63	Pea Blue	<i>Lampides boeticus</i>	C
64	Lime blue	<i>Chilades laius</i>	NR
65	Common Cerulean	<i>Jamides celeno</i>	C
66	Dark Cerulean	<i>Jamides bochus</i>	R
67	Zebra Blue	<i>Leptotes plinius</i>	VC
68	Gauva Blue	<i>Deudorix isocrates</i>	R
69	Rounded pierrot	<i>Tarucus nara</i>	VC
70	Common pierrot	<i>Castalius rosimon</i>	VR
71	Dark Pierrot	<i>Tarucus ananda</i>	VR
72	Angled Pierrot	<i>Caleta caleta</i> Hewitson	R
73	Red Pierrot	<i>Talicauda nyseus</i>	VR
74	Banded Blue Pierrot	<i>Discolampa ethion</i> Westwood	VR
75	I forget -me-not	<i>Catochrysops strabo</i>	C



Checklist

Sr. No	Common Name	Scientific Name	Status
76	Plains Cupid	<i>Chilades pandava</i>	C
77	Indian Cupid	<i>Everes lacturnus</i>	R
78	Small Cupid	<i>Chilades parrhasius</i>	C
79	Common Silverline	<i>Spindasis vulcanus</i> F.	R
80	Club Silverline	<i>Spindasis syama Peguanus</i> M.	VR
81	Scare Shot Silverline	<i>Spindasis elima</i> Moore.	VR
82	Common Shot Silverline	<i>Spindasis ictis</i> Hewit.	VR
83	Common Lineblue	<i>Prosotas nora</i> C&R Felder	NR
84	Tailless Linblue	<i>Prosotas dubiosa sivoka</i> Evans	R
85	Slate Flash	<i>Rapala manera</i>	C
86	Indian Red Flash	<i>Rapala jarbus</i> Fab.	R
87	Indigo Flash	<i>Rapala varuna</i> Horsfield	R
88	Palm Judy	<i>Abisara echerius</i>	C
89	Centaur Oakblue	<i>Nilasera centaurus</i>	R
90	Large Oak Blue	<i>Arhopala amantes</i>	NR
V	Family : NYMPHALIDAE		
91	Comm. Evening Brown	<i>Melanitis leda</i>	VC
92	Dark Evening Brown	<i>Melanitis phedima</i>	C
93	Common Bushbrown	<i>Mycalesis bnmmerseus</i>	VC
94	Darkbrand Bushbrown	<i>Mycalesis mineus</i> L	VC
95	Common Tree Brown	<i>Lethe rohria</i>	NR
96	Bamboo Tree Brown	<i>Lethe europa</i>	NR
97	Banded Tree Brown	<i>Lethe confuse</i> Aurivill	R
98	Tamil Bush Brown	<i>Mycalesis subdita</i>	R
99	Common Three Ring	<i>Ypthima asterope</i>	C
100	Common Four Ring	<i>Ypthima asterope</i>	VR
101	Common Five Ring	<i>Ypthima baldus</i>	VR
102	Lemon Pansy	<i>Junonia lemonias</i>	VC



Sr. No	Common Name	Scientific Name	Status
103	Yellow Pansy	<i>Junonia hierta</i>	C
104	Blue Pansy	<i>Junonia orithya</i>	VC
105	Grey Pansy	<i>Junonia atlited</i>	R
106	Peacock Pansy	<i>Junonia almana</i>	NR
107	Chocolate Pansy	<i>Precis iphita</i>	VC
108	Plain Tiger	<i>Danaus chrysippus</i>	VC
109	Striped Tiger	<i>Danaus genutia</i>	C
110	Blue Tiger	<i>Tirumala limniace</i>	C
111	Dark Blue Tiger	<i>Tirumala Septentrionis</i>	R
112	Glassy Tiger	<i>Parantica aglea</i>	VR
113	Common Leopard	<i>Phalanta phalantha</i>	VC
114	Baronet	<i>Euthalia nais</i>	VC
115	Joker	<i>Byblia ilithyia</i>	LC
116	Tawny Castor	<i>Acraea violae</i>	VC
117	Common Castor	<i>Ariadne merione</i>	NR
118	Angled Castor	<i>Ariadne ariadne</i>	C
119	Painted Lady	<i>Cynthia cardui</i>	C
120	Common Indian Crow	<i>Euploea core</i>	VC
121	Danaid Eggfly	<i>Hypolamnas misippus</i>	NR
122	Great Eggfly	<i>Hypolamnas bolina</i>	C
123	Common Baron	<i>Euthalia aconthea</i>	R
124	Common Nawab	<i>Polyura athamas athamas</i>	VR
125	Anomalous Nawab	<i>Polyura agraria</i> Swinhoe	R
126	Black Rajah	<i>Charaxes fabius</i>	R
127	Commander	<i>Moduza procris procris</i>	C
128	Common Sailer	<i>Neptis hylas varmona</i>	VC
129	Common Sergeant	<i>Parathyma perius</i> Linn	VR
130	Staff Sergeant	<i>Athyma selenophora</i>	VR
131	Blue Oakleaf	<i>Kallima horsfieldi</i> Kollar	VR



Butterfly Host & Nectar Plant List

No.	Plant	Type	Local Name	Use	Butterfly
1	Grass Bamboo				
2	Raselin red / Yellow				
3	Ruellia tuberosa				
4	Sambucus nigra				
5	<i>Senna obtusifolia</i>	Tree		Host	Common Grass Yellow
6	<i>Sesbania bispinosa</i>			Host	Common Grass Yellow, Mottled Knight, Zebra Blue
7	<i>Stachytarpheta jamaicensis</i>	Shrub		Nectar	
8	<i>Tournefortia ulmifolia</i>				
9	<i>Tylophora indica</i>	Climber	Anantmul	Host	Blue Tiger, Plain Tiger, Glassy Tiger, Common Crow
10	Vinca				
11	Vitex negundo				
12	<i>Watahaka volubilis</i>	Climber		Host	Blue Tiger
13	<i>Zingiber spp.</i>	Shrub		Host	Grass Demon
14	Zinnia				
15	<i>Caesalpinia</i>		Shankasur red / yellow		
16	Palm - Toll Plant				
17	Mouliya spicata				
18	Mussaenda erythrophylla				
19	Mussaenda frondosa				
20	Nerium crenulata				
21	<i>Oxalis corniculata</i>	Herb		Host	GRASS JEWEL
22	Pasiflora subpeltata				
23	Pavetta crassicaulis				
24	Pisum sativum				
25	<i>Plumbago zeylanica</i>	Shrub		Host	Zebra Blue
26	<i>Portulaca oleracea</i>	Herb		Host	Great Eggfly, Diamond Eggfly
27	<i>Psychotria umbellata</i>	Tree	Tupa		
28	<i>Ricinus Communis</i>	Shrub	Frond	Host	Common Castor, Angled Castor, Common Banded Owl
29	Salix tetrasperma				
30	Sida rhombifolia				
31	Sida spp. Passia				
32	Streblus asper				
33					
34	<i>Toddalia asiatica</i> (Rutaceae) :				LHP of Red Helen and Paris Peacock. Locally known as Pila, Piludi in Gujarati, (Meswae in colloquial English) this small tree is often found growing on salty, saline areas. Also attracts many birds for its delicious fruits, host plant of small salmon arab
35	<i>Tridax Procumbens</i>	Herb		Nectar	
36	<i>Tylophora daltzei</i>	Climber		Host	Blue Tiger, Plain Tiger, Glassy Tiger, Common Crow
37	<i>Tylophora tenuis</i>	Climber		Host	Striped Tiger
38	<i>Uvaria narum</i>	Climber		Host	Common Blackbuck, Tailed Jay and Fivebar Swordtail
39	<i>Vallaris solanacea</i> (Apocynaceae) -				Commonly known as Ponds Flower, grown as garden plant also runs in the wild. Blue Tiger and Dark Blue tiger
40	<i>Vigna</i> sp. (?) - Fabaceae :				Common cerulean, Dark Cerulean, Forget-me-not and Common Sailer
41	<i>Xylinx xylocarpus</i> (Mimosaceae) -				Tricolor Pied Pit, Common Imperial, Indian Subcan, Long-banded Silverline, Large Oakblue, Red Spot, Western Centaur Oakblue, Monkey Puzzle, Common Condon, Dark Condon and Plains Cupid
42	<i>Zanthoxylum rhetsa</i>				
43	<i>Ziziphus moutanensis</i>	Shrub		Host	Common Pierrot
44	<i>Ziziphus</i> spp.				
45	Bambusa Chavari				
46	Bamboo Tiger				
47	Bamboo variegated				
48	Buddha belly				
49	Calandrinia White				
50	Calandrinia red				





Butterfly Host & Nectar Plant List

No	Plant	Type	Local Name	Use	Butterfly
51	Casia Biflora				
52	Cycus				
53	Fennia				
54	Fishail palm				
55	Hamelia patens				
56	Jatropha integerrima				
57	Melostema white / Purple				
58	Wadeliya				
59	Washingtonia palm				
60	Abutilon spp.	Shrub			
61	<i>Acacia catechu</i>	Tree		Host	Common Nawab
62	<i>Adelocaryum coelestinum</i>	Shrub		Nectar	
63	<i>Albizia lebeck</i>	Tree		Host	Common Nawab, Zebra Blue
64	<i>Alseodaphne semicarpifolia</i>				
65	<i>Artabotrys hexapetalus</i>	Climber	Hirva Chapha	Host	Tailed Jay
66	<i>Atalantia wightii</i>				
67	<i>Atlantia racemosa</i>	Tree	Makadlimbu	Host	Common Mormon, Blue Mormon, Lime Blue
68	Beans variety Blues				
69	<i>Cadaba fruticosa</i>	Shrub		Host	Small Orange Tip, White Orange Tip, Common Gull, Pioneer, C. Wanderer
70	<i>Capparis grandis</i>				
71	<i>Capparis monii</i>				
72	<i>Capparis sepiaria</i>				Common Gull, Pioneer, Striped Albatross, Crimson Tip, White Orange Tip, and Yellow Orange Tip
73	<i>Cerapegia spp.</i>	Climber	Kandilful	Host	Striped Tiger, Plain Tiger, Glassy Tiger
74	Citrus spp.				
75	<i>Costus speciosus</i> - Zingiberaceae :				Grass Demon, Restricted Demon and Common Banded Demon
76	<i>Cretevia religiosa</i>				
77	<i>Dendrophthoe falcata</i>	Shrub	Bandgul	Host	Common Jezebel
78	<i>Derris scandens</i>				
79	<i>Flacouetia indica</i>	Tree		Host	Common Leopard, Rustic
80	Gardening & Layout charges				
81	<i>Butea monosperma</i>	Tree	Palas	Host	Common Emigrant, Grim Blue, Pea Blue, Common Cerulean
82	<i>Calotropis gigantea</i>	Shrub	Rui	Host	Plain Tiger, Glassy Tiger
83	<i>Capparis zeylanica</i>	Climber	Waghati	Host	Great Orange Tip, Common Wanderer, Common Gull, Pioneer
84	<i>Casia aulata</i>				
85	<i>Cassia fistula</i>	Tree	Behawa	Host	Common Grass Yellow, Common Emigrant, Mottled Emigrant
86	<i>Cinnamomum spp.</i>	Tree		Host	Common Blue Bottle, Common Jay, Tailed Jay, Common Mine
87	<i>Citrus grandis</i>	Tree	Limbu	Host	Common Mormon, Blue Mormon, Lime, Red Helen
88	<i>Citrus limon</i>	Tree	Limbu	Host	Common Mormon, Blue Mormon, Lime, Red Helen
89	<i>Clerodendrum paniculatum</i>	Shrub		Nectar	
90	<i>Clerodendrum serratum</i>	Shrub	Bharangi	Nectar	
91	<i>Clerodendrum viscosum</i>	Shrub		Nectar	
92	<i>Cretevia magna</i>	Tree	Waywana	Host	Great Orange Tip, Common Wanderer, Common Gull, Pioneer, Chockolet Albatross
93	<i>Crotalaria retusa</i>	Shrub			
94	<i>Cryptolepis buchmanii</i>	Climber		Host	Glassy Tiger, Common Crow, Plain Tiger
95	<i>Cuphea</i>	Herb		Nectar	
96	<i>Duranta Erecta</i>	Shrub		Nectar	
97	<i>Ficus racemosa</i>	Tree	Umber	Host	Common Crow
98	<i>Heliotropium indicum</i>	Shrub	Hastishundi		
99	<i>Hemiklesmus indicus</i>				
100	<i>Honey Suckle</i>	Climber			





Butterfly Host & Nectar Plant List

No	Plant	Type	Local Name	Use	Butterfly
101	<i>Hygrophila auriculata</i>	Shrub	Talimkhana	Host	All Pansy
102	<i>Ixora</i>	Shrub			
103	<i>Ixora nigricans</i>				
104	<i>Jeranium</i>				
105	<i>Kalanchoe pinnata</i>	Shrub	Pamphuti	Host	Red Pierrot
106	<i>Lantana camara</i>	Shrub	Ghaneri	Nectar	
107	<i>Elmonia acedissima</i>	Tree	Kavath	Host	Line Butterfly
108	<i>Mangifera Indica</i>	Tree	Amba	Host	Common Baron
109	<i>Michelia champaca</i>	Tree	Pivla Chafa	Host	Common Jay, Tailed Jay
110	<i>Murraya koenigii</i>	Tree	Kadipatta	Host/Nectar	Common Mormon, Line
111	<i>Nerium oleander</i>	Shrub	Kanher	Host	Common Crow
112	Pampas grass brown				
113	Pampas grass red				
114	<i>Passiflora foetida</i>	Climber		Host	Twany Coster
115	<i>Passiflora incarnate</i>	Climber	Krishnakamal Purple	Host	Twany coster
116	<i>Passiflora incarnate</i>		Krishnakamal red		
117	<i>Pentus spp.</i>	Shrub		Nectar	
118	<i>Pithecellobium dulce</i>	Tree	Vilayri Chunch	Host	Common Grass Yellow
119	Poinsetia				
120	<i>Polyalthia longifolia</i>	Tree	Ashok	Host	Common Blue Bottle, Common Jay, Tailed Jay, Spot Sword Tail
121	<i>Pongamia pinnata</i>	Tree	Karanj	Host	Common cerulian
122	Raselia red / Yellow				
123	<i>Flacourtia montana</i>				
124	<i>Flacourtia ramontchi</i>				Larval food plant of Common Leopard
125	<i>Glycosmis pentaphylla</i> (Clarhorea)				Line Butterfly, Malabar Raven, Re Helen, Common & Blue Mormon
126	<i>Gnidia glauca</i>	Shrub		Nectar	
127	<i>Holostemma Creeper</i> (<i>Holostemma ada-kodien</i>)			Host	Striped Tiger
128	<i>Hygrophila schult</i>				
129	<i>Ixora paveta</i>				
130	<i>Jatropha integrissima</i>				
131	<i>Justicia neesii</i>				
132	<i>Leca indica</i>	Shrub		Nectar	
133	<i>Leca macrophylla</i>				
134	<i>Linonia cremifolia</i> - Rutaceae				LHP of Line butterfly, Common mormon and Blue mormon
135	<i>Maerua oblongifolia</i>			Host	Small Orange Tip, White Orange Tip, Common Gull, Pioneer
136	<i>Millettia tomentosa</i>	Tree		Host	Common Blue Bottle, Common Jay, Tailed Jay, Spot Sword Tail
137	<i>Abrus precatorius</i>	Climber	Gunj	Host	Common Cerulean
138	<i>Aegle marmelos</i>	Tree	Bel	Host	Common Mormon, Line
139	<i>Annona squamosa</i>	Tree	Sitaphal	Host	Tailed Jay
140	<i>Aringa whittii</i>	Tree		Host	Common Palm Fly
141	<i>Aristolochia indica</i>	Climber	Badakwel	Host	Common Rose, Crimson Rose, Southern Birdwing
142	<i>Aristolochia tagala</i>	Climber	Badakwel	Host	Common Rose, Southern Birdwing
143	<i>Barleria cristata</i>	Shrub	Koranti	Host/Nectar	Darail Eggfly
144	<i>Buddleja asiatica</i>	Shrub		Nectar	
145	<i>Buddleja davidii</i>	Shrub		Nectar	
146	<i>Adenium</i>				
147	<i>Arceca palm</i>				
148	<i>Aristolochia grandiflora</i>				
149	<i>Asclepias curassavica</i>	Shrub	Hukdi-Kunku	Host/Nectar	Plain Tiger, Common Crow
150	<i>Bahama purpuria</i>				





Odonates

(Dragonflies and Damselflies)





Ischnura aurora



Odonates (Damselflies and Dragonflies) are most ancient and beautiful insect orders, with origin spanning back to carboniferous era, about 250 million years ago. They probably mark the first time that evolution experimented with the ability to hover in air over an object of interest. They are beautifully coloured, primarily aquatic in their pre-adult stages and their life is closely tied with fresh water ecosystems such as rivers, streams, lakes, marshes, rice fields and known as quintessence of freshwater health. Even though species are usually highly specific to a habitat, some have adapted to urbanization and use man-made water bodies.

Odonates are not only important for water-rich habitats such as wetlands, lakes and rainforests but they are also significant for habitats where water is scarce and therefore order Odonata is regarded as flagship group of insects and vital to the survival of life. These amphibiotic insects are reliable indicators of overall ecosystem's health and also worthy bio-control agents. Odonata fauna are highly sensitive to environmental changes and often regarded as compatible agents for environmental monitoring



Globally 6256 species in 686 genera of odonates have been reported, of which 487 species, 27 subspecies in 152 genera and 18 families are known from India. 135 species of Odonata are reported from Maharashtra. Odonate adults lay eggs in specific aquatic habitats. The larvae which emerges from the eggs are predatory and they feed on diverse aquatic organisms such as small crustaceans, aquatic insects, tadpoles and small fish. Adult odonate usually emerges during late evening or early morning.

Emerged odonates colonize landscapes surrounding the wetland. Male odonates are generally more brightly coloured than females. Adults catch insects such as small flies, mosquitoes, butterflies and other small odonates in flight. Some species of dragonflies like the Wandering Glider (*Pantala flavescens*) migrate with monsoon winds across the Indian subcontinent. These migrating dragonflies suddenly appear in thousands just before the rains. During the breeding season, adult males establish territories along wetlands, which they actively patrol and guard against other conspecific males. Sexually mature and receptive females visit territories held by males. After a brief courtship, male and female odonates mate. Usually, males guide the female to the egg laying site and also guard her from other aggressive males while she lays eggs. Egg laying habitats are highly specific for each species. Odonates, because of their specific habitat and landscape requirement, are very sensitive to changes in landscape and are reliable indicators of wetland health.

The body of the dragonfly is divided into three major sections, head, thorax and abdomen. The compound eyes are very large to assist the insect with its active hunting lifestyle and chewing –biting type of mouth parts. The abdomen is long and segmented. The thorax possesses three pairs of legs which are poorly adapted for walking but are excellent for catching prey. The wings are large, long and transparent and make the dragonflies the most accomplished fliers of the animal kingdom.

While both dragonflies and damselflies belong to the Odonata and share many common features, there are a number of noticeable differences as well. Even before hatching from the egg, differences in morphology of the egg distinguish dragonflies (Anisoptera) from damselflies (Zygoptera).



Common Clubtail (*Ictinogomphus rapax*)

Size

LARGE :

Abdomen :

50-52 mm

Hind Wing :

40-44 mm

Description : A large black dragonfly with blue grey eyes and bright yellow markings on thorax and abdomen. Eighth abdominal segment has prominent black lateral leaf like extensions.

Habits and Habitat: This common dragonfly usually perches on a bare twig facing the water body.



Common Oartail (*Paragomphus lineatus*)

Size

MEDIUM :

Abdomen :

31-36 mm

Hind Wing :

24-27 mm

Description: Yellow dragonfly with black and brown markings, and bluish eyes. 8th and 9th segments of males have lateral oar like expansions.

Habits and Habitat: Commonly found near streams, rivers, ponds and lakes.



DRAGONFLIES (SUBORDER: ANISOPTERA)

II DARNERS (FAMILY: AESHNIDAE)

Size

LARGE :
Abdomen :
56-62 mm
Hind Wing :
50-54 mm



Blue-tailed Green Darner (*Anax guttatus*)

Description: A large green and blue dragonfly. Eyes are blue with yellow and black behind. Thorax is pale green and hind wing has large amber yellow patch. The first two abdominal segments are pale green; however the second segment is brilliant turquoise blue dorsally. The segments 4-7 have 3 pairs of bright orange spots. **Habits and Habitat:** A diurnal species, which occasionally, comes to light at night. The dragonfly is very common near marshes, ponds and patrolling the edges of water bodies all alone.

Size

LARGE :
Abdomen :
52-55 mm
Hind Wing :
55-60 mm



Blue Darner (*Anax immaculifrons*)

Description: A large turquoise blue (male) or yellowish green (female) and brown dragonfly with sapphire blue (male) or yellowish green eyes (female). Thorax and abdomen has turquoise blue (male) or yellowish green (female) markings.

Habits and Habitat: Frequents sluggish streams.



Size

LARGE :

Abdomen :

56-62 mm

Hind Wing :

50-54 mm

Yellow-tailed Green Darner (*Anax indicus*)

Description : A large green and blue dragonfly. Eyes are green with yellow and black behind. Thorax is pale green. The first two abdominal segments are pale green; however the second segment is brilliant turquoise blue dorsally. On 7-8 the supra-carinal yellow spots coalesce to form a continuous yellow band. **Habits and Habitat:** This species is found along large water body, ponds and lakes.



Size

MEDIUM,

NARROW :

Abdomen :

46 mm

Hind Wing :

44 mm

Parakeet Darner (*Gynacantha baya*)

Description : A medium sized green dragonfly with deep blue to blue grey eyes which fades to yellowish green below. Thorax is bright grass green and abdomen is pale brown to reddish brown dorsally.

Habits and Habitat: Frequents reed covered ponds and tanks. A crepuscular insect, often comes to light immediately after the rains.



DRAGONFLIES (SUBORDER: ANISOPTERA)

III TORRENT HAWKS (FAMILY: MACROMIIDAE)

Size

LARGE :
Abdomen :
 55-65 mm
Hind wing :
 55-65 mm



Common Torrent Hawk (*Epophthalmia vittata*)

Description : A large brown dragonfly with dark brown to dark ochreous stripes at the base of hind wings. Abdomen marked with bright ochreous annules

Habits and Habitat: The species breeds in plains although prefer to live in the hills.

IV SKIMMERS (FAMILY: LIBELLULIDAE)

Size

SMALL :
Abdomen :
 15-18 mm
Hind Wing :
 16-21 mm



Trumpet Tail (*Acisoma panorpoides*)

Description : A small pale blue/yellow dragonfly with marbled black and white pattern in thorax and abdomen. Eyes are blue and glossy brown with black spots. Anterior abdomen widely dilated up to 5th segment and abruptly slimmed posteriorly. **Habits and Habitat:** A species closely associated with water. Commonly found among reeds in ponds and tanks. The species has a very weak and short flight.



Ditch Jewel (*Brachythemis contaminata*)

Size

SMALL :
Abdomen :
 18-21 mm
Hind Wing :
 20-23 mm

Description : A small rusty brown dragonfly, eyes are olivaceous brown above and bluish grey below. Wings are transparent with reddish venation. A broad bright orange patch extending from wing base to wing spot in both the wings. Females are yellowish brown without the bright orange wing patches of males.

Habits and Habitat: It is a dragonfly of polluted waters. This species is very common along sewage canals, tanks, ponds and ditches if flies very close to ground and perches on aquatic weeds.



Granite Ghost (*Bradinopyga geminata*)

Size

MEDIUM :
Abdomen :
 26-29 mm
Hind Wing :
 33-36 mm

Description : A medium sized grey dragonfly with brown eyes. Grey thorax and abdomen is peppered with black, white and light grey.

Habits and Habitat: This species is usually seen perched on compound walls, boulders etc. It easily merges with such perching sites because of its colouration. The species is commonly found near rock pools and other similar small water collections. It is common in urban environment and breeds in overhead tanks and garden ponds.

Size

MEDIUM :
Abdomen :
 24-25 mm
Hind Wing :
 27-38 mm



Ruddy Marsh Skimmer (*Crocothemis servilia*)

Description : It is a medium sized blood red with a thin black line along the mid-dorsal abdomen. Female is similar but yellowish brown, with broader black line.

Habits and Habitat: Its found in ponds, puddles, rivers, big wells, tanks, ditches and paddy fields. This dragonfly perches on aquatic weed and chases any passing by dragonflies

Size

SMALL :
Abdomen :
 19-22 mm
Hind Wing :
 22-23 mm



Ground Skimmer (*Diplacodes trivialis*)

Description : It is a small yellow, green, light or dark blue dragonfly with black markings.

Habits and Habitat: Its one of the common dragonflies in gardens, fields etc. This dragonfly usually perches on ground and rarely flies above 1m.



Pied Paddy Skimmer (*Neurothemis tullia*)

Description : It is a small black dragonfly with black and white (male) or brown and black (female) wings.

Habits and Habitat: It is a conspicuous species of ponds, marshes and paddy fields. Flight is slow and usually perches on twigs, aquatic weeds and other plants. This species is very common along irrigation canals in paddy fields.

Size

SMALL :

Abdomen :

16-20 mm

Hind Wing :

19-23 mm



Green Marsh Hawk (*Orthetrum sabina*)

Description : It is a medium sized light green dragonfly with black and pale cream coloured stripes and bands. Eyes are green mottled with black. Abdominal segments 1-3 are green with broad black rings and swollen.

Habits and Habitat: It is a common dragonfly of gardens and fields. This dragonfly perches motionless on shrubs and dry twigs for long time.

Size

MEDIUM :

Abdomen :

30-36 mm

Hind Wing :

30-36 mm

DRAGONFLIES (SUBORDER: ANISOPTERA)

Size

MEDIUM :
Abdomen :
 29-35 mm
Hind Wing :
 33-40 mm



Blue Marsh Hawk (*Orthetrum glaucaum*)

Description : It is a medium sized dull blue and black (male) or reddish brown dragonfly. Eyes are dark green and are capped with reddish brown in males.

Habits and Habitat: It is commonly found in sub montane marshes associated with streams, plantations and canals.

Size

MEDIUM :
Abdomen :
 28-31 mm
Hind Wing :
 32-36 mm



Crimson-tailed Marsh Hawk (*Orthetrum pruinatum*)

Description : A medium sized crimson tailed dragonfly with blue grey thorax. Females are dull ochre in overall colouration. Eyes are blue black above and bluish grey below in males and yellowish, capped with brown in females.

Habits and Habitat: It is a very common dragonfly of wells, ponds, ditches, tanks and rivers. Males are very conspicuous and could be seen perched on shrubs, stones etc.



Size

MEDIUM :

Abdomen :

29-35 mm

Hind Wing :

38-40 mm

Wandering Glider (*Pantala flavescens*)

Description : It is a medium sized golden yellow (female) or orange (male) coloured dragonfly. Eyes are reddish brown above, bluish grey laterally and beneath.

Habits and Habitat: It is most common dragonfly. Huge swarms can be seen just before and after monsoon. They are ubiquitous and migrate in large numbers with the monsoon winds.



Size

MEDIUM :

Abdomen :

29-32 mm

Hind Wing :

33-35 mm

Yellow-tailed Ashy Skimmer (*Potamarcha congener*)

Description : It is a medium sized bluish black and yellow dragonfly. Eyes are reddish brown above and bluish grey below in males. Overall colouration of the female is dull yellow with blackish brown markings.

Habits and Habitat: It is found in weedy ponds and marshes. Large colonies are often found in woods associated with ponds and marshes.

DRAGONFLIES (SUBORDER: ANISOPTERA)

Size

MEDIUM :
Abdomen :
 20-25 mm
Hind Wing :
 28-36 mm



Common Picture Wing (*Rhyothemis variegata*)

Description : Its medium sized dragonfly with metallic green thorax. Yellow wings are marked with large brown blotches. It Flutters like a butterfly in flight.

Habits and Habitat: A prominent dragonfly of marshes, paddy fields and ponds. This species is easily mistaken for a butterfly. Its weak flier and frequently perches on aquatic weeds.

Size

MEDIUM :
Abdomen :
 28-33 mm
Hind Wing :
 33-37 mm



Coral-tailed Cloud Wing (*Tholymis tillarga*)

Description: It is a medium sized coral red coloured dragonfly with a broad fan shaped golden brown patch in the hind wing. This is bordered by milky white patch. Eyes are reddish olivaceous below with a brown cap. Females are olivaceous without any red tinge and hind wings brown without milky white spot.

Habits and Habitat: It is a crepuscular dragonfly, active at the time of sunset and flies at night. It frequently comes to light at night. This fast flying dragonfly is very difficult to follow. It is commonly found in ponds, marshes and tanks and roosts among bushes near wetlands.



Coral Marsh Trotter (*Tramea virginia*)

Description : It is a medium sized dark brown dragonfly with brick red abdomen. Terminal abdominal segments are black. The hind wing has broad reddish brown patch. Eyes are reddish brown.

Habits and Habitat: It is commonly found in reed covered ponds and lakes.

Size

MEDIUM :

Abdomen :

34-38 mm

Hind Wing :

43-49 mm



Crimson Marsh Skimmer (*Trithemis aurora*)

Description : It is a small crimson coloured dragonfly with crimson coloured veins in the fore and hind wings. Eyes are crimson above and brown laterally. Crimson colour of male is replaced by bright ochreous in females.

Habits and Habitat: It is one of the common dragonflies of our wetlands. The males usually perch on dry twigs, aquatic plants and overhead cables.

Size

SMALL :

Abdomen :

21-29 mm

Hind Wing :

24-34 mm

DRAGONFLIES (SUBORDER: ANISOPTERA)

Size

SMALL :
Abdomen :
 22-28 mm
Hind Wing :
 26-32 mm



Black Stream Skimmer (*Trithemis festiva*)

Description : It is a small blue black dragonfly with eyes which are dark brown. Females are greenish yellow to olivaceous with black stripes in abdomen. The mid dorsal and sub dorsal stripes confluent at abdominal segments to enclose wedge shaped yellow spots.

Habits and Habitat: It is very common in slow flowing streams and canals. It usually perches on boulders and aquatic plants.

Size

MEDIUM :
Abdomen :
 22-24 mm
Hind Wing :
 24-30 mm



Scarlet Rock Glider (*Trithemis kirbyi*)

Description : The male is a medium sized scarlet dragonfly with abroad reddish amber patch on the base of transparent wings. Female is similar to male, but duller. The reddish brown basal markings in the wings are variable in extend.

Habits and habitat: It is usually found in marshes, ponds and lakes. They have an interesting habit of sitting on exposed rocks.



River Heliodor (*Libellago lineata*)

Size

MEDIUM :

Abdomen :

30-32 mm

Hind Wing :

22 mm

Description : It is a medium sized brick red damselfly with black broad banded wing. Female is similar to male but duller body, stouter abdomen and hyaline wings with creamy white wing spots.

Habits and Habitat: These are found in streams and rivers. They perch on emergent boulders and aquatic plants.



Moult of a Dragonfly

DAMSELFLIES (ZYGOPTERA)

Size

SMALL :
Abdomen :
 16-17 mm
Hind Wing :
 10-11 mm



Pigmy Dartlet (*Agriocnemis pygmaea*)

Description : It is a small apple green and black damselfly with black capped green eyes. Terminal segments of apple green and black abdomen are brick red. Females show a range of colour variations, some even resembles males.

Habits and Habitat: It is found commonly in marshes, ponds, sea coast. It darts among herbage and rarely flies above 1 meter.

Size

LARGE :
Abdomen :
 28-32 mm
Hind Wing :
 18-20 mm



Coromandel Marsh Dart (*Ceriagrion coromandelianum*)

Description : Male are large sized green or bright yellow damselfly with Olivaceous and pale greenish yellow eyes. Females are duller than males.

Habits and Habitat: One of the commonest damselfly of this region. They are found along garden tanks, banks of ponds, rivers and canals. They are also found frequently far away from water bodies.

Breeding : Their breeding shallow water bodies with profuse growth of grass and other aquatic plants.



Azure Dartlet (*Enallagma parvum*)

Description : It is a damselfly with black-striped azure blue thorax and broadly blue-tipped black tail. Two distinct forms in some of the female's blue thorax is replaced by greenish-yellow.

Habits and Habitat : It is found on edges of weedy tanks, lakes and wet meadows.

Size

SMALL :

Abdomen :

16-17 mm

Hind Wing :

10-11 mm



Golden Dartlet (*Ischnura aurora*)

Description : Male are small black, green and yellow with azure blue spots at the end of abdominal segments. The female is less brightly coloured than the male and terminal abdominal segments are without the azure blue spots.

Habits and Habitat: They are found among vegetation along the banks of ponds, rivers and canals.

Size

SMALL :

Abdomen :

16-20 mm

Hind Wing :

10-15 mm

DAMSELFLIES (ZYGOPTERA)

Size

SMALL :
Abdomen :
 21-23 mm
Hind Wing :
 13-15 mm



Senegal Golden Dartlet (*Ischnura senegalensis*)

Description : It is a small black, green and yellow damselfly (longer than *I. aurora*) with azure blue spots at the second and terminal abdominal segments. The female is less brightly coloured than the male and abdominal segments are without the azure blue spots.

Habits and Habitat: It is found very common in marshes, ponds and wet grasslands.

Size

SMALL :
Abdomen :
 14 mm
Hind Wing :
 9.5-11 mm



Pixie Dartlet (*Ischnura nursei*)

Description : It is a small black, crimson and bright yellow damselfly with green to greenish yellow eyes. Abdominal segments are marked with bright crimson, yellow and black. Females show a range of colour variations, some even resembles males.

Habits and Habitat: It is commonly found in marshes and ponds, flying or perched about one-two feet above ground.



Size

MEDIUM :**Abdomen :**

28-31 mm

Hind Wing :

19-21 mm

Three-Lined Dart (*Pseudagrion decorum*)

Description : It is a damselfly with pale bluish green thorax and azure blue-tipped abdomen. Three fine black lines on mid-dorsum and forward-pointing black arrow head marking on second abdominal segment. Females are different from males, with blue thorax and yellowish green abdomen marked dorsally in black.

Habits and Habitat : It is found on edges of reservoirs, lakes and rivers, mostly in dry areas.



Size

MEDIUM :**Abdomen :**

29 mm

Hind Wing :

18-20 mm

Saffron-faced Blue Dart (*Pseudagrion rubriceps*)

Description : It is a medium sized azure blue damselfly with bright orange face and eyes. Females are bluish green without bright orange markings.

Habits and Habitat: It frequents banks of rivers & usually perches on aquatic plants on the bank and are seen in small groups of 3-4 individuals.



DAMSELFLIES (ZYGOPTERA)

Size

LARGE :
Abdomen :
30-32 mm
Hind Wing :
20-21 mm

**Brown Spreadwing (*Lestes umbrinus*)**

Description : It is pale yellowish or reddish brown in colour, laterally without marking; the inter segmental suture is dark brown.

Habits and Habitat: It is commonly found in tanks, dry open areas, ponds and streams. It usually sits with open wings on plants.

Size

LARGE :
Abdomen :
34-35 mm
Hind Wing :
23-24 mm

**Emerald-Striped Spreadwing (*Lestes viridulus*)**

Description : It is a khaki brown damselfly with a pair of diagnostic narrow reddish brown stripes bordered by metallic green strips on either sides of mid dorsal carina.

Female is similar to male, but with a blackish brown mid-dorsal mark on 9th segment.

Habits and Habitat: It is commonly found in dry grass and forest undergrowth.



Yellow Bush Dart (*Copera marginipes*)

Description : It is a medium sized black damselfly with yellow markings. Eyes are black above, greenish on sides and beneath with black equatorial band. Females are brown with black markings.

Habit and Habitat : It is found along ponds, puddles, canals and streams. It flies very close to the ground (<1m).

Size

MEDIUM :

Abdomen :

28-31 mm

Hind Wing :

16-18 mm



Black-winged Bambootail (*Disparoneura quadrimaculata*)

Description: It is a small black and yellow damselfly with black tipped transparent wings. Female is more robustly built with stouter abdomen and olivaceous green thorax marked with marbled pattern.

Habitat: It is confined to hill streams and rivers of forested landscapes. It frequently sits on emergent water plants and overhanging bushes.

Size

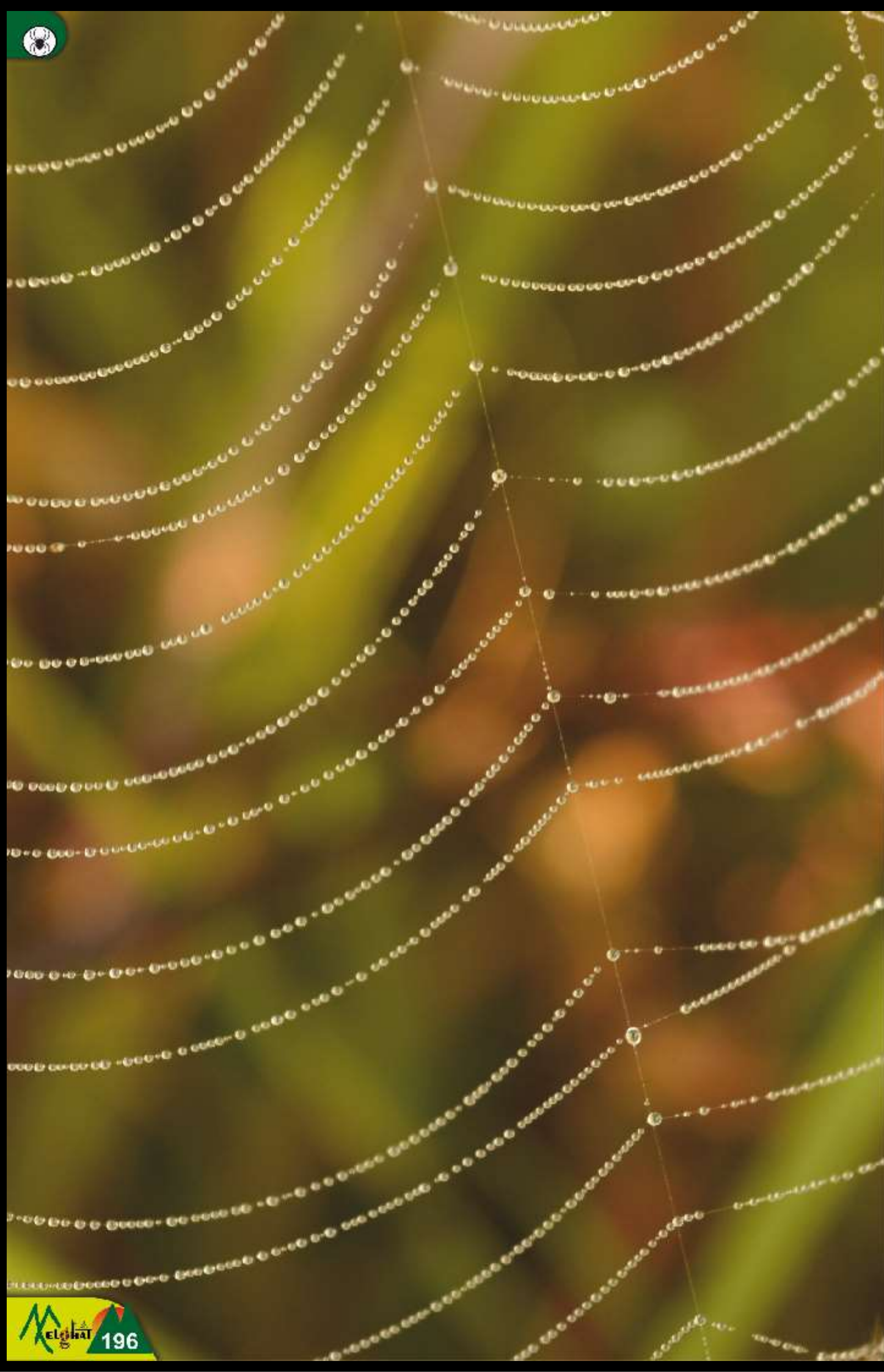
MEDIUM :

Abdomen :

14-16 mm

Hind Wing :

15-18 mm





SPIDER



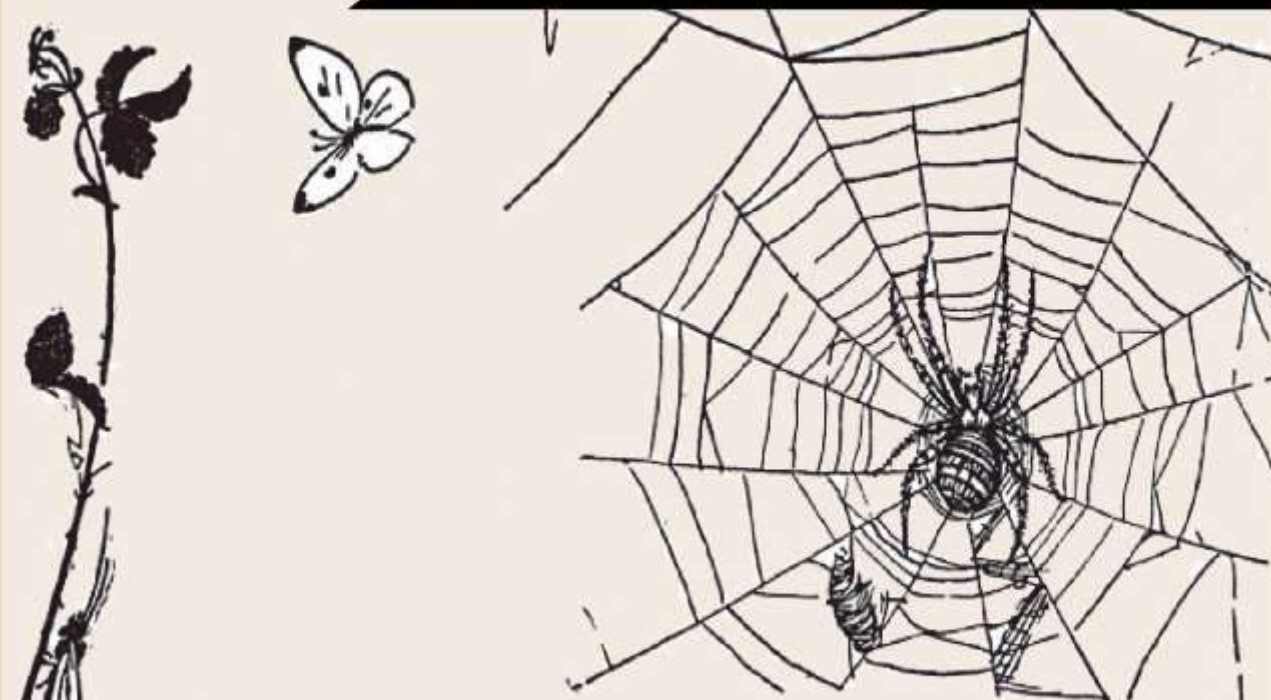
Giant Wood Spider (*Nephila pilipes*)



Neoscona Species

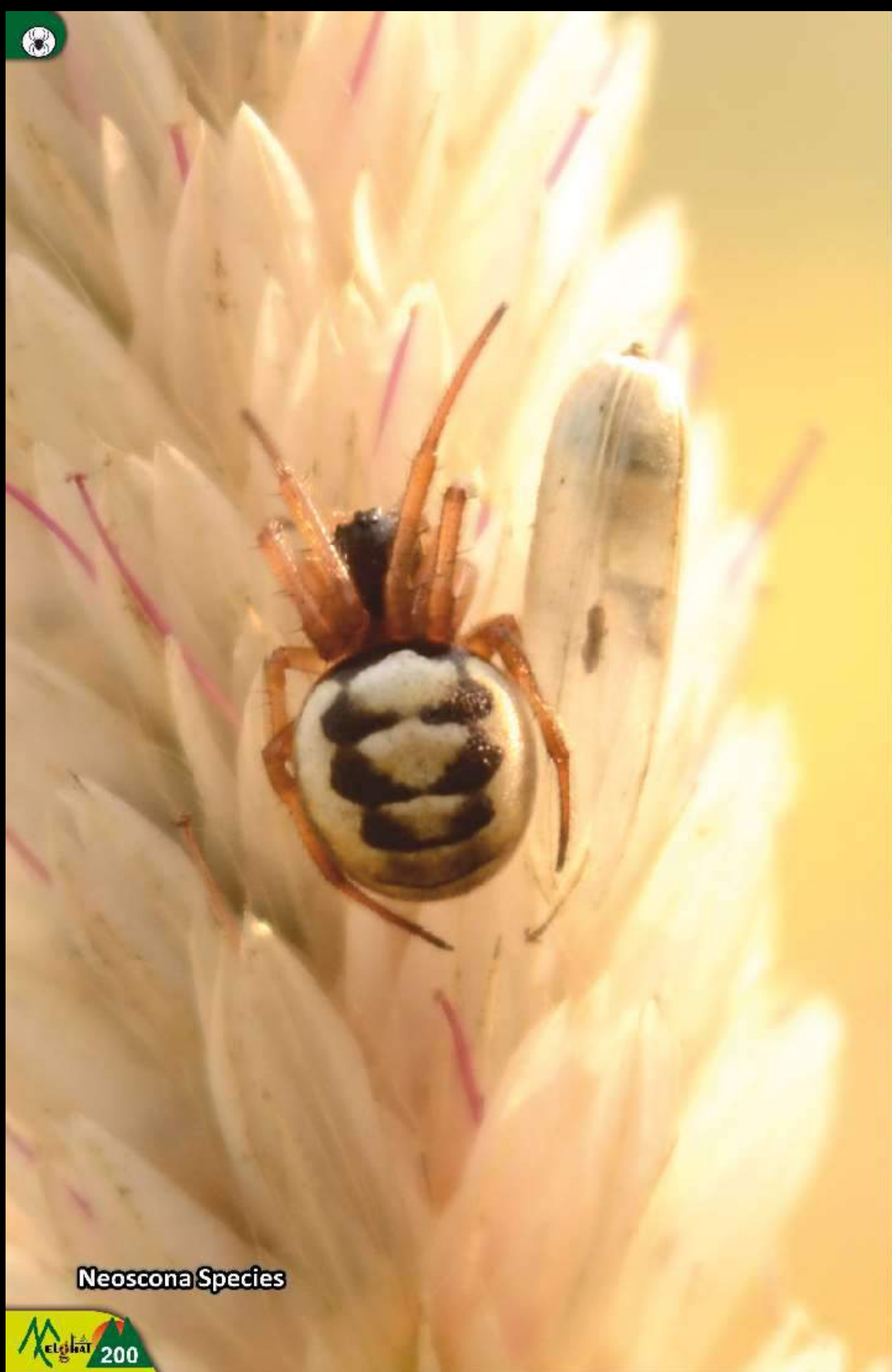


About Spiders



Spiders form one of the largest groups of invertebrate animals, nearing 4769 known species belonging to 4099 genera (WSC, 2018). They are distributed worldwide. They occur on all continents except Antarctica and are found in every conceivable terrestrial habitat, including caves, snow-covered tundra, high mountains and intertidal zones. Dr. Atul Bodkhe, Asst. Prof. Spider Research Laboratory - J.D. Patil Sangludkar Mahavidyalaya is continually engaged in Taxonomical study of spiders from Melghat Tiger Reserve forest area since 2002. Following are some commonly occurring spiders (species number are tremendous). Checklist of commonly observed spiders in Melghat forests is given.





Neoscona Species



Introduction:

Spider are predatory invertebrate animals that have two body segments, eight legs, one chewing mouth part and no wings. They are classified in the order **Araneae**, one of several orders within the larger class of arachnids, a group which also contains scorpions, whip scorpions/ pseudo-scorpions, phalangids (Daddy Long Legs), solfugids, mites and ticks. The study of spiders is known as Arachnology. Spiders, like many other invertebrates, have traditionally suffered a lack of attention from conservation professionals and the general public.

Spiders play an important role in stabilizing or regulating insect populations because they are one of the most numerous insectivores and exhibit a wide variety of lifestyles and foraging strategies. Spiders possess the characteristics of predators that can contribute to density-independent limitation of prey, including self-damping, high levels of polyphagy and life cycles that are asynchronous to those of prey species. While biological control by Spiders has not been clearly demonstrated in natural systems, evidences in agro-ecosystems have been found in several studies and benefits to primary producers have been measured.

Additionally, spiders are an important food source for birds, lizards, wasps and other animals. In a study of trunk arthropods, spiders provided a relatively constant food source throughout the year for bark gleaning birds (Peterson et al 1989).

All spiders produce silk, a thin, strong protein strand extruded by the spider from six spinnerets most commonly found at the end of the abdomen. Many species use it to trap insects in webs, although there are also many species that hunt freely. Silk can be used to aid in climbing, from smooth walls for burrows, build egg sacs, wrap prey, and temporarily hold sperm, among other applications.



Size:

Spiders occur in a large range of size. The smallest, Dwarf spiders of the subfamily Erigoninae are less than 1 mm in body length. The largest and heaviest spiders occur among tarantulas, which can have body lengths up to 90 mm and leg spans up to 250 mm.

Colouration:

Only three classes of pigment (ommochromes, bilins and guanine) have been identified in spiders, although other pigments have been detected but not yet characterized. Melanins, carotenoids and pterins, very common in other animals, are apparently absent. In some species the exocuticle of the legs and prosoma is modified by a tanning process, resulting in brown colouration.

Life span:

Many spiders may only live for about a year, but a number will live for two years or more, overwintering in sheltered areas. The annual influx of outdoor spiders into houses in the fall is due to this search for a warm place to spend the winter. It is common for female tarantulas to live up to twenty years.

Ecology:

Spiders have a great range of variation and lifestyle, although all are predatory. While spiders are generalist predators, in actuality their different methods of prey capture often determine the type of prey taken. Thus web-building spider rarely captures more bees, butterflies and some flies than other insects. Groups of families that tend to take certain type of prey because of their prey capture methods are often called guilds. A few spiders are more specialized in their prey capture. *Dysdera* captures and eats sowbugs, pillbugs and beetles, while pirate spider eats only other spiders. Bolas spiders in the family Araneidae use sex pheromone analogs to capture only the males of certain moth species. Because of their generally broad prey ranges, spiders are one of the most important links in the regulation of the populations of insects.

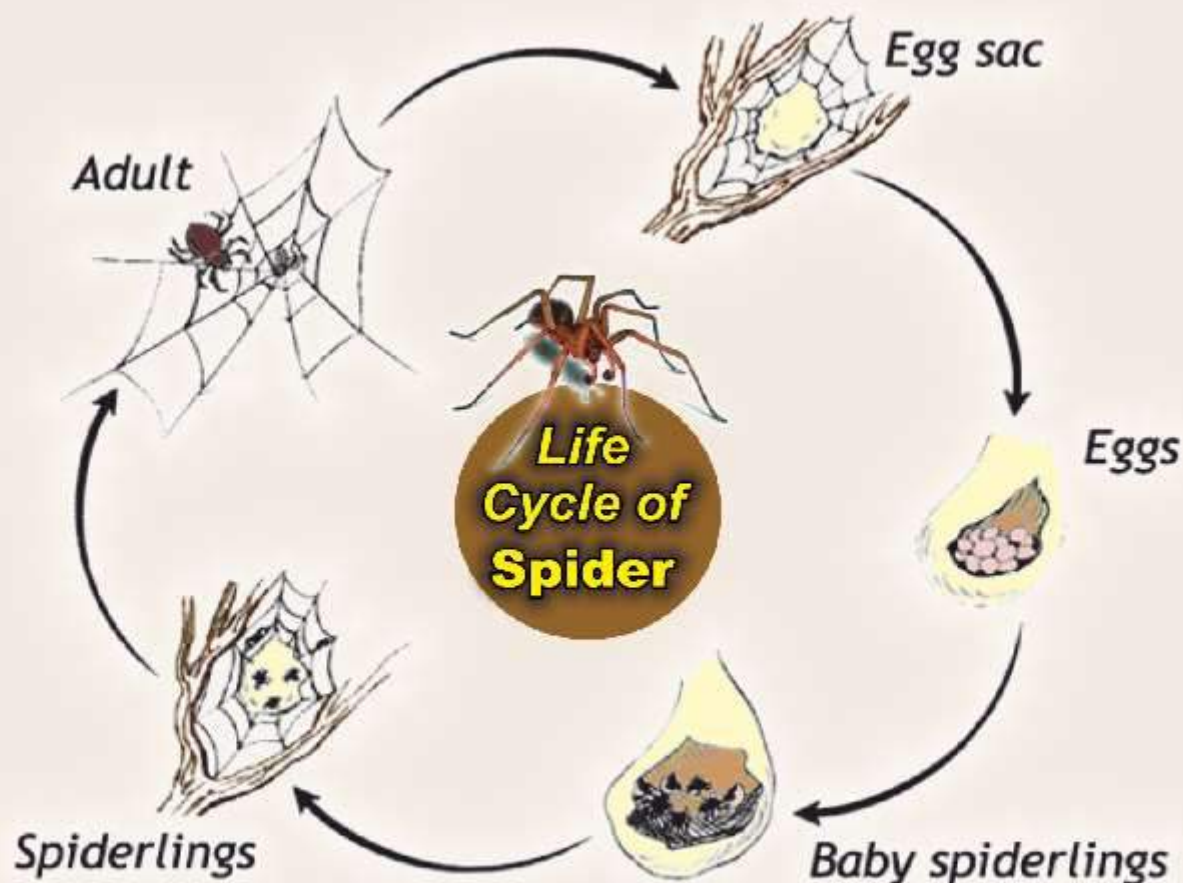




Life Cycle

The life cycle of the spiders progresses through three stages the embryonic, the larval and the nympho-imaginal.

The time between when an egg is fertilized and when the spider begins to take the shape of an adult spider is referred to as the embryonic stage. As the spider enters the larval stage, it begins to look more and more like a full grown spider. It enters the larval stage as a pre larvae and through subsequent moults, reaches its larval form, a spider-shaped animal feeding off its yolk supply. After a few more moults (also called instars) body structures become differentiated. Soon, all organ systems are complete and the animal begins to hunt on its own. It has reached the nympho-imaginal stage. This stage is differentiated into two sub-stages, the nymph or juvenile stage and the imago or adult stage. A spider does not become sexually mature until it makes the transition from nymph to imago. Once a spider has reached the imago stage, it will remain there until its death. After sexual maturity is reached, the general rule is that they stop moulting but the females of some non-araneomorph species will continue to moult the rest of their lives.





Spider bite, symptoms and first-aid:

All spiders secrete venom through a gland. It is injected through a fang. However, this venom is mainly used to kill the large number of insect and mites on which they feed daily. The venom of only a few species is potentially dangerous to human. Only the female is able to bite through the skin but in most cases a full dose of venom is not injected.

The venom of spider is of neurotoxic nature and causes systematic symptoms and localised pain. Young children and people with heart and lung problems are however more sensitive to the venom. The following symptoms are observed shortly after someone has been bitten.

Symptoms:

- 1 Severe abdominal cramps and cramps in the chest and limbs, particularly at the articulation joint.
- 2 The venom causes a victim to perspire heavily and the victim suffers from excessive mucus secretion.
- 3 Body temperature increases or drops abnormally in most cases.
- 4 Nausea and vomiting occurs and the victim becomes hyperactive.
- 5 Death can result by heart failure or respiratory problem.

Treatment:

Consult a doctor. Inject 5 ml of the anti venom subcutaneously or intramuscularly if available as soon as possible. The victim must be kept still and calcium gluconate (10 ml) can be given by a doctor to get relief from the pain.





Family: ARANEIDAE Clerck, 1757



Araneus mitificus (Simon, 1886)

The Araneidae is a large family comprising 174 genera and 3130 species.

Diagnostic characteristics:

These are small to large araneomorph spiders. They have three tarsal claws; ecribellate, entelegyne; eight eyes in two rows with lateral eyes widely separated from the median eyes, labium rebordered; abdomen globose, overhanging the carapace; legs usually with numerous spines and sustentaculum on tarsus IV; male palp with mesalcymbium, median apophysis and radix in the embolic division. An orb web with a sticky spiral, or a modification of such a web, is constructed.

Natural history:

They construct an orb web on shrubs & semi dwarf plants. They are voracious feeders and traps their prey in webs.

List of commonly occurring species:

1. *Araneus mitificus* Simon, 1886
2. *Poltys illepidus* C. L. Koch, 1843
3. *Neoscona muketjei* Tikader, 1980
4. *Cyclosa vankhedensis* Dhande, Bodkhe & Ahmad, 2017
5. *Cyclosa moonduensis* Tikader, 1963
6. *Nephila pilipes* Fabricius, 1793



Neoscona mukerjei (Tikader, 1980)

Nephila pilipes (Fabricius, 1793)





***Poltys illepidus* (C.L. Koch, 1843)**

***Cyclosa vankhedensis dhande*, (Bodkhe & Ahmad, 2017)**





Cyclosa moonduensis (Tikader, 1963)

Argiope anasuja





Poecilotheria regalis (Pocock, 1899)



Dew drops on the web of a spider



Family: **HERSILIIDAE** Thorell, 1870



Hersilia savignyi (Lucas, 1836)

These are long spinnered spiders / to tailed spiders / whirligig spiders.

Hersiliidae comprises 16 genera with 181 species.

Diagnostic characteristics:

They are small to medium sized areneomorph spiders. They have three tarsal claws; ecribellate; entelegyne; eight eyes; posterior spinnerets long and slender with apical segment strongly tapering; carapace ovoid and flattened; eyes on tubercles.

Natural history:

They are found hunting on barks of trees, stones, mimicking bark and stone colors. Sometimes they are found on walls of building. They are most active nocturnally sometime active during day time.

List of commonly occurring species:

1. *Hersilia savignyi* Lucas, 1836



Family: LYCOSIDAE Sundevall, 1833



***Evippa jabalpurensis* (Gajbe, 2004)**

Wolf Spiders:

They are represented by 124 genera and almost 2419 species from seven subfamilies: Allocosinae, Evippinae, Lycosinae, Pardosinae, Vennoniinae, Wadicosinae and Tricassinae.

Diagnostic characteristics:

They are small to very large araneomorph spiders. They have three tarsal claws; ecribellate; entelegyne; eyes in three rows (4:2:2); male palp is almost always without retrolateral tibial apophysis; female carries egg sac attached to spinnerets.

Natural history:

They are free living ground dwelling hunters. Some live in burrows or construct sheet webs with funnel.

List of commonly occurring species:

1. *Evippa jabalpurensis* Gajbe, 2004
2. *Hippasa holmerae* Thorell, 1895
3. *Geolycosa carli* Reimoser, 1934
4. *Lycosa arambagensis* Biswas & Biswas, 1992



Family: **LYCOSIDAE** Sundevall, 1833



Geolycosa carli (Reimoser, 1934)

Hippasa holmerae
(Thorell, 1895)



Lycosa arambagensis
(Biswas & Biswas, 1992)





Family: OECOBIIDAE Blackwall, 1862



These are dwarf round-headed spiders/ star legged spiders belonging to the family Oecobiidae which contains 6 genera in which 113 species have been reported.

Diagnostic characteristics:

These are small to medium sized araneomorph spiders; they have three tarsal claws; cribellate and ecribellate genera; entelegyne; six or eight eyes; anal tubercle large, two segmented with double fringe of curved setae.

Natural history:

These are found on barks, sometimes under stones, on cracks, crevices of rocks and rough surfaces of walls.

List of commonly occurring species:

1. *Oecobius marathaus* Tikader, 1962
2. *Uroctea thaleri* Rheims, Santos & van Harten, 2007

Oecobius marathaus
(Tikader, 1962)



Uroctea thaleri rheims,
(Santos & Van Harten, 2007)





Family: OXYOPIDAE Thorell, 1870

Lynx Spiders

Oxyopidae contains 9 genera and 457 species.

Diagnostic characteristics:

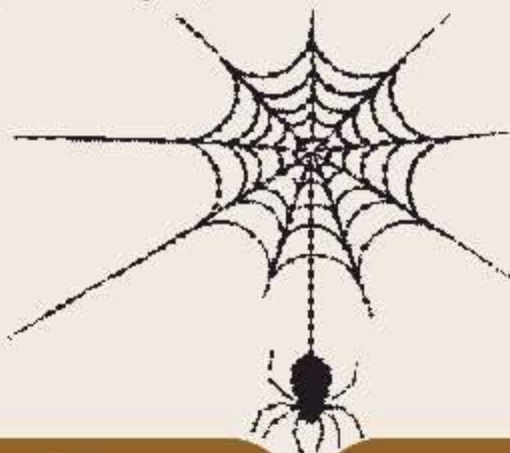
They are small to large araneomorph spiders. They have three tarsal claws; ecribellate; entelegyne; eight eyes; clypeus wide; setae prominent on legs; trochanters notched; tapetum grate-like.

Natural history:

Free living plant dwellers and on grasses. Hunting spider, may jump on flying prey.

List of commonly occurring species:

1. *Oxyopes kohaensis* Bodkhe & Vankhede, 2012
2. *Peucetia yogeshi* Gajbe, 1999



Oxyopes kohaensis
(Bodkhe & Vankhede, 2012)

Peucetia yogeshi
(Gajbe, 1999)





Family: PHOLCIDAE C.L. Koch, 1850



Crossopriza lyoni (Blackwall, 1867)

Daddy-long-legs spider

They are represented by 77 genera and about 1667 species in five subfamilies: Holocneminae, Ninetinae; Pholcinae and an unnamed Neotropical clade.

Diagnostic characteristics:

They are very small to medium-sized spiders. They have three tarsal claws; ecribellate; haplogyne; six or eight eyes; clypeus about as high as chelicerae; legs are usually very long with pseudo-segmented tarsi; chelicerae fused with lamina, modified in males; male palp with conspicuous procurus (retrolateral paracymbium).

Natural history:

They construct sheet or space webs on dark places like caves, under stones, roof and fallen logs.

List of commonly occurring species:

1. *Crossopriza lyoni* Blackwall, 1867
2. *Artema atlanta* Walckenaer, 1837
3. *Micropholcus fauroti* Simon, 1887
4. *Leptopholcus kandy* Huber, 2011



Family: PHOLCIDAE C.L. Koch, 1850



Artema atlanta (Walckenaer, 1837)

Micropholcus fauroti
(Simon, 1887)



Leptopholcus kandy
(Huber, 2011)





Family: SALTICIDAE Blackwall, 1841



Cyrba ocellata (Kroneberg, 1875)

Jumping spider

They are represented by 663 genera and 6082 species arranged in 16 subfamilies.

Diagnostic characteristics:

They are small to large araneomorph spiders. They have two tarsal claws; ecribellate; entelegyne; eight eyes; carapace square-fronted with four, forwardly directed eyes of which the anterior median eyes are very large.

Natural history:

They are diurnal, cursorial hunting, jumping spider. These occupy wide variety of habitats i.e., on walls, stones, barks, grounds and grasses as well as in leaf litter.

List of commonly occurring species:

1. *Cyrba ocellata* Kroneberg, 1875
2. *Chrysilla acerosa* Wang & Zhang, 2012
3. *Harmochirus brachiatus* Thorell, 1877
4. *Hasarius adansonii* Audouin, 1826
5. *Hyllus semicupreus* Simon, 1885
6. *Menemerus bivittatus* Dufour, 1831
7. *Thyene imperialis* Rossi, 1846
8. *Plexippus paykulli* Audouin, 1826



Family: **SALTICIDAE** Blackwall, 1841



Chrysilla acerosa (Wang & Zhang, 2012)

Harmochirus brachiatus
(Thorell, 1877)



Hasarius adansoni
(Audouin, 1826)





Family: **SALTICIDAE** Blackwall, 1841



Thyene imperialis (Rossi, 1846)

Plexippus paykulli (Audouin, 1826)





Family: ERESIDAE C.L. Koch, 1845



***Stegodyphus sarasinorum* (Karsch, 1892)**

They are known from 98 species & belong to 9 genera.

Diagnostic characteristics:

They are small to large Araneomorph spiders. They have three tarsal claws; cribellate; entelegyne; eight eyes; carapace convex, rectangular; median eyes situated close together, with lateral eyes spaced; body usually clothed in a dense layer of short plumose setae.

Natural history:

They are social spiders & retreat webs in burrows and on plant. They are sometimes found in huge colonies on thorny plant and on compound walls.

List of commonly occurring species:

Stegodyphus sarasinorum Karsch, 1892



Family: FILISTATIDAE Ausserer, 1867



Pritha poonaensis (Tikader, 1963)

Crevise wavers

They are represented by 19 genera and 165 species.

Diagnostic characteristics:

These are small to medium-sized araneomorph spiders. They have three tarsal claws; cribellate; haplogyne; eight eyes; labium fused to sternum; chelicerae basally fused with laminae; cribellum divided, bearing claviformcribellate spigots.

Natural history:

They construct tubular webs in holes present in sediment or soil and sloppy terrain of mountains.

List of commonly occurring species:

1. *Pritha poonaensis* Tikader, 1963



Family: LIOCRANIDAE Simon, 1897

Spiny legged sac spiders

They are represented by 31 genera and 272 species.

Diagnostic characters:

They are small to medium-sized araneomorph spider. They have two tarsal claws; ecribellate; entelegyne; eight eyes (sometimes reduced); male palp with medium apophysis.

Natural history:

They are ground dwelling, free-living inside litters sometimes found associated with ants and termites.

List of commonly occurring species:

1. *Oedignatha binoyii* Reddy & Patel, 1993
2. *Sphingius delakharensis* Sweta Pawaria, Atul Bodkhe, Subhash Kamble & Supriya T, 2017

Oedignatha binoyii



Sphingius delakharensis





Family: SCYTODIDAE Blackwall, 1864

Spitting spiders

They are represented by 5 genera and 248 species.

Diagnostic characteristics:

They are small to medium-sized araneomorph spiders. They have three tarsal claws; ecribellate; haplogyne; six eyes in three diads; domed thoracic region contains prosomal glands that produce gluey silk; legs long and slender; body is decorated with symmetrical dark pattern.

Natural history:

They are wandering spiders commonly occurring in soil or surface of grass bases.

List of commonly occurring species:

1. *Dictis ganeshi* Keswani, 2015
2. *Scytodes mawphlongensis* Tikader, 1966

Dictis ganeshi



Scytodes mawphlongensis





Family: SICARIIDAE Keyserling, 1880



Loxosceles rufescens (Dufour, 1820)

Six-eyed sand spiders, Violin spiders

They are placed in two subfamilies, Laxoscelinae and Sicariinae and represented by 3 genera and 163 species.

Diagnostic characteristics:

They are medium-sized to large araneomorph spiders. They have two tarsal claws; ecribellate; haplogyne; six eyes in three diads; semichelate provided with a stridulating files.

Natural history:

They are ground dwellers, free-living, sometimes found in leaf litters.

List of commonly occurring species:

1. *Loxosceles rufescens* (Dufour, 1820)



Family: SPARASSIDAE Bertkau, 1872

Huntsman spiders

They are comprised of 88 genera and almost 1225 species.

Diagnostic characters:

They are medium-sized to very large araneomorph spider. They have two tarsal claws; ecribellate; entelegyne; eight eyes; laterigrade legs; soft trilobite membranes at apex of metatarsi; chelicera margin with teeth.

Natural history:

They are hunting spiders, some species are huge in size, nocturnal, wandering. They are found on plants and in caves.

List of commonly occurring species:

1. *Heteropoda sexpunctata* Simon, 1885
2. *Olios tener* Thorell, 1891

Heteropoda sexpunctata
(Simon, 1885)



Olios tener
(Thorell, 1891)





Family: TETRAGNATHIDAE Menge, 1866



Guizygiella shivui (Patel & Reddy, 1990)

Water orb-weavers

They are represented by 48 genera and 1004 species placed in four subfamilies; Dolichognathinae, Leucauginae, Metainae and Tetragnathinae.

Diagnostic characteristics:

They are small to very large araneomorph spiders; They have three tarsal claws; ecribellate; entelegyne or secondary haplogyne; eight eyes; male genitalia is comparatively simple, with large paracymbium and often several cymbial processes, conductor and embolus coiled apically; median apophysis is absent.

Natural history:

They are orb weavers. They generally construct webs horizontal over water surface and some on plants.

List of commonly occurring species:

1. *Guizygiella shivui* Patel & Reddy, 1990
2. *Tetragnatha mandibulata* Walckenaer, 1841
3. *Leucauge decorata* Blackwall, 1864



Family: TETRAGNATHIDAE Menge, 1866



Tetragnatha mandibulata (Walckenaer, 1841)

Leucauge decorata (Blackwall, 1864)





Family: THERIDIIDAE Sundevall, 1833



Physosoma martinae (Roberts, 1983)

Cob web spiders, Gum foot Web spiders

They are represented by 124 genera and more than 2504 species.

Diagnostic characteristics:

They are small to medium sized araneomorph spiders. They have three tarsal claws; ecribellate; entelegyne; eight eyes; trasi IV with a row of tightly curved, serrated bristles; labium not rebordered; leg with few spines; modified, aggregate silk gland present; male palp tibia distally widened; no paracymbium; sticky silk is used to wrap prey.

Natural history:

They construct irregular space webs commonly known as cob web or gumboot in wide variety of habitats.

List of commonly occurring species:

1. *Physosoma martinae* Roberts, 1983
2. *Steatoda grossa* C. L. Koch, 1838
3. *Theridion melanostictum* O. Pickard-Cambridge, 1876



Family: THERIDIIDAE Sundevall, 1833



Steatoda grossa (C.L. Koch, 1838)

Theridion melanostictum
(O. Pickard-Cambridge, 1876)





Family: THOMISIDAE Sundevall, 1833



***Amyciaea forticeps* (O. Pickard-Cambridge, 1873)**

Crab spiders

They are represented by 170 genera and 2163 species (Platnick, 2005) listed in seven subfamilies: Aphantochilinae, Bominae, Dietnae, Stephanopinae, Stephanopinae, Strophinae, Stiphropodinae and Thomisinae.

Diagnostic characteristics:

They are small to large araneomorph spiders. They have two tarsal claws; ecribellate; entelegyne; eight eyes; legs laterigrade with I and II usually longer than III and IV (except Bominae); lateral eyes usually on tubercles; morphologically a very diverse group.

Natural history:

They are wandering spiders found mainly on leaf litters, some are on ground but sometimes may climb on bark of trees.

List of commonly occurring species:

1. *Amyciaea forticeps* O. Pickard-Cambridge, 1873
2. *Xysticus bengalensis* Tikader & Biswas, 1974
3. *Tmarus kotigeharus* Tikader, 1963



Family: **THOMISIDAE** Sundevall, 1833



Xysticus bengalensis (Tikader & Biswas, 1974)

Tmarus kotigeharus (Tikader, 1963)





Family: TITANOECIDAE Lehtinen, 1967



Pandava laminata (Thorell, 1878)

Rock wavers

They are represented by 5 genera and 53 species.

Diagnostic characteristics:

They are small to medium sized araneomorph spiders; They have three tarsal claws; cribellate; entelegyne; eight eyes; clamistrum long, uniseriate; endites parallel; male palpal tibia complex, with pro- and retrolateral apophyses.

Natural history:

They are ground dwelling spiders. They have flimsy webs under stone or cribellate space webs. They sometimes may be found wandering on ground or bark.

List of commonly occurring species:

1. *Pandava laminata* (Thorell, 1878)



Family: ULOBORIDAE Thorell, 1869

Hackled orb web spiders, Triangle web spiders, Single line web spiders.

They are represented by 19 genera and more than 283 species placed in four subfamilies; Miagrammopinae, Hyptiotinae, Tangaroinae and Uloborinae.

Diagnostic characteristics:

They are small to medium sized araneomorph spiders. They have three tarsal claws; cribellate; entelegyne; eight eyes; metatarsi IV dorsally compressed and curved under uniseriatecalamistrum; femora with rows of long trichobothria; venom glands are absent; male palp with two apical setae.

Natural history:

They construct orb webs or single line webs are also constructed by some individuals. They are found on trees barks branches on walls, in bushes.

List of commonly occurring species:

1. *Miagrammopes apostrophus* Sen, Saha & Raychaudhuri, 2013
2. *Uloborus jabalpurensis* Bhandari & Gajbe, 2001

Miagrammopes apostrophus



Uloborus jabalpurensis





Family: ZODARIIDAE Thorell, 1881

Burrowing spiders, Ant eating spiders

They are represented by 85 genera and more than 1143 species placed in five subfamilies: Cyriocetinae, Cydreliinae, Lachesanninae, Storenomorphinae and Zodariinae.

Diagnostic characteristics:

They are small to large araneomorph spiders with an enormous variation of shapes. They have three tarsal claws with teeth on paired tarsal claws implanted on lateral side facing opposing claws; ecribellate; entelegyne; six or eight eyes; serrula are absent; cheliceral fangs are very short; anterior lateral spinnerets are long; posterior spinnerets are reduced.

Natural history:

They are free-living ground dwellers sometimes found on barks or under stones. They mimic ants and termites.

List of commonly occurring species:

1. *Tropizodium viridurbium* Prajapati, Murthappa, Sankaran & Sebastian, 2016
2. *Euryeidon jatashankarae* Supriya Talwar, Shashikanth Majagi, Atul Bodkhe & Subhash Kamble, 2017.

Tropizodium viridurbium



Euryeidon jatashankarae





Common Amphibians



Indian Bull frog (*Hoplobatra chustigirinus*)



About Amphibians

Amphibians are cold-blooded vertebrate animal of a class that comprises the frogs, toads, newts, salamanders, and caecilians. They are distinguished by having an aquatic gill-breathing larval stage followed (typically) by a terrestrial lung-breathing adult stage. (dictionary)

Amphibians are ectothermic, tetrapod vertebrates of the class **Amphibia**. Modern amphibians are all Lissamphibia. They inhabit a wide variety of habitats, with most species living within terrestrial, fossorial, arboreal or freshwater aquatic ecosystems. Thus, amphibians typically start out as larvae living in water, but some species have developed behavioural adaptations to bypass this. The young generally undergo metamorphosis from larva with gills to an adult air-breathing form with lungs. Amphibians use their skin as a secondary respiratory surface and some small terrestrial salamanders and frogs lack lungs and rely entirely on their skin. They are superficially similar to lizards but, along with mammals and birds, reptiles are amniotes and do not require water bodies in which to breed. With their complex reproductive needs and permeable skins, amphibians are often ecological indicators; in recent decades there has been a dramatic decline in amphibian populations for many species around the globe.



Family: Ranidae

Indian Bull Frog (*Hoplobatra chustigirinus*)



Size

16 cm

Micro-habitat

Seasonal ponds,
streams & rivers

Status

Common

Family: Ranidae

Indian Skittering Frog (*Euphlyctis cyanophlyctis*)



Size

6-7 cm

Micro-habitat

Seasonal ponds,
streams & rivers

Status

Common



Family: Ranidae

Indian Cricket Frog (*Fejervarya limnocharis*)

Size

2-6 cm

Micro-habitat

Wetlands

Status

Common



Family: Ranidae

Indian Paddy Field Frog (*Fejervarya kerelensis*)

Size

2-7 cm

Micro-habitat

Wetlands &

grasslands

Status

Common





Family: Ranidae

Indian Burrowing Frog (*Sphaerothoe cabreviceps*)



Size

6.5 cm

Micro-habitat

Wetlands
& grasslands

Status

Common

Family: Rhacophorida

Indian Tree Frog (*Polypedates maculatus*)



Size

3-8 cm

Micro-habitat

Arboreal

Status

Seasonally
common



Family: Bufonidae

Asian Toad (*Duttaphrynus melenostictus*)

Size

15 cm

Micro-habitat

Humid &
dry habitats

Status

Very common



Family: Bufonidae

Marbled Toad (*Bufo stomaticus* Lutken)

Size

9 cm

Micro-habitat

Humid &
dry habitats

Status

Common



(C. Gajanan Wagh 2016)



Family: Microhylidae

Ornate Microhylid (*Microhyla ornata*)



Size

2.5 cm

Micro-habitat

Wetlands
& grasslands

Status

Seasonally
common

Family: Microhylidae

Painted Kaloula (*Kaloula taprobanica*)



Size

9 cm

Micro-habitat

Arboreal &
underground

Status

Seasonally
common



Shell of a Snail



Forest Owlet



Birds of Melghat



243





Spotted Owlet



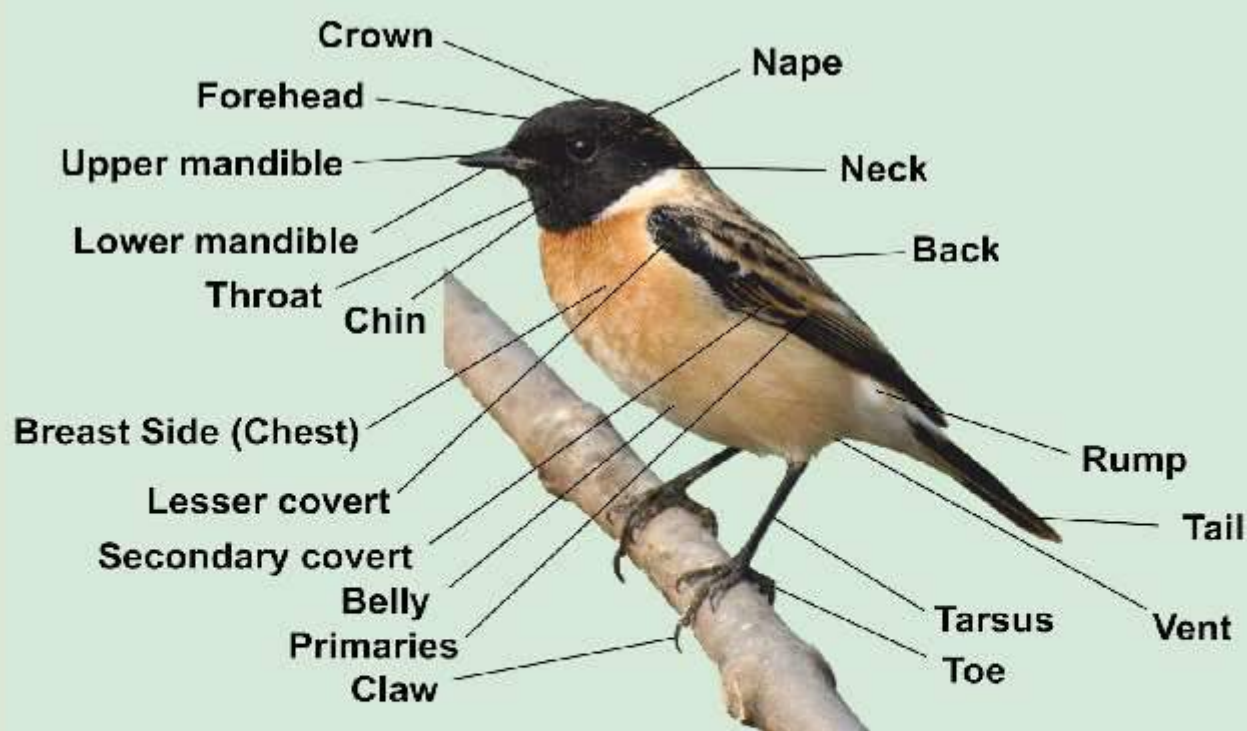
Bird watching:

Birding is probably the best natural therapy for mental and physical relaxation and takes our souls close to nature.

For being a bird watcher there is no need for you to have any specific educational qualification. Birding is a hobby anyone can pursue. To become a bird watcher observation skills & interest are required which gets developed by regular practice.

In the later phase one can go on to identify and study the other aspects of bird life.

How to identify the birds? Birds can be identified by their body features or by their calls. Morphologically birds are different from each other by the colour pattern, beak shape, body size and by wing shape when birds are soaring in the sky. The general body structure details are given as below.





Equipment and accessories required for bird watching:



Camouflage T-Shirts



Cap / Hat



Water bottol (Min. 1lit)

Jungle Shoes



Blnocular (10X50)

Camera with tele lens



Notebook, Pen / Pencil



Field guides

Haversack





do's & don'ts

1. Take care not to disturb either the bird or its habitat. Walk softly on land.
2. Stay on established pathways and keep motor vehicles on established roads and parking areas.
3. Avoid harassment; don't disturb birds that are nesting or their nesting areas do not handle eggs or young ones or wait for too long at a active nest.
4. Don't use playback tapes or screech owl recordings to call birds in.
5. Don't trespass on private property. Respect landowner's rights to privacy. Always ask permission first.
6. If looking to find endangered species, follow all laws of the land.
7. Avoid "tree-whacking" to arouse cavity dwellers. Undue disturbance may cause the bird to abandon its nest.
8. Divide larger groups of people into smaller, more manageable numbers. Small groups cause less disturbance.
9. Leave no litter or trash. Pack your garbage out of wilderness areas.
10. Support local and national bird conservation organizations.



Categorise index of bird group



Partridge
and Quail



Cormorant



Starling
and Myna



Duck



Egret



Tit



Barbet



Bittern



Swallow



Roller,
Kingfisher,
Bee-eater



Ibis



Bulbul



Bee-eater



Stork



Warbler



Cuckoo



Shrike



Lark



Parakeet



Treepie/
Crow



Sunbird



Owl/
Owlet



Drongo



Wagtail



Pigeon/
Dove



Thrush



Babbler



Raptor



Flycatcher



Munia



Order: GALLIFORMES

(Partridge & Quails)

Family: PHASIANIDAE

Size

Male: 180-230 cm
Female: 90-100 cm

Status

R

Breeding Season

Monsoon
April-August

Food



kee ow, kee-ow/ka-an,
ka-an/kok-kok, cain-kok

Indian Peafowl (*Pavo Cristatus*)

नर: मोर / मादा : लांडोर



**Grey
Francolin**
(*Francolinus
pondicerianus*)
राखी तित्तर

Size : **33 cm**
Status: **R**

Habitat



**Painted
Francolin**
(*Francolinus
pictus*)
रंगीत तित्तर

Size : **31 cm**
Status: **R**



Habitat





**Common
Quail**
(*Coturnix coturnix*)

सामान्य लावा

Size : 20 cm

Status: **W**

Habitat



Rain Quail
(*Coturnix coromandelica*)
पावसाळी लावा

Size : 18 cm

Status: **R**

Habitat





**Jungle Bush
Quail (*Perdicula
asiatica*)**
जंगली झुडपी लावा

Size : 17.5 cm

Status: **R**

Habitat



**Rock Bush
Quail (*Perdicula
argoondah*)**
खडकी लावा

Size : 17 cm

Status: **R**



Habitat





**Painted Bush
Quail (*Perdicula
erythrorhyncha*)**

रंगीत लावा

Size : 18 cm

Status: R

Habitat



**Barred
Buttonquail
(*Turnix suscitator*)**
पट्टेरी बट लावा

Size : 15 cm

Status: R

Habitat





**Yellow-legged
Buttonquail**
(*Turnix tanki*)
पिवळ्या पायाचा
बट लावा

Size : 79 to 93 cm

Status: **R**

Habitat



**Small
Buttonquail**
(*Turnix sylvatica*)
सामान्य बटन लावा

Size : 14 to 17 cm

Status: **R**

Habitat





Red Spurfowl
(*Galloperdix spadicea*)
लाल चकोली

Size : 36 cm
Status: **R**

Habitat



Painted Spurfowl
(*Galloperdix lunulata*)
रंगीत चालोक

Size : 32 cm
Status: **R**

Habitat





**Red
Junglefowl**
(*Gallus gallus*)
लाल रान कोंबडी

Size :
Male: 65-75 cm
Female: 42-46 cm
Status: **R**

Habitat



**Grey
Junglefowl**
(*Gallus sonneratti*)
राखी रान कोंबडी

Size :
Male: 70-80 cm
Female: 38 cm
Status: **R**

Habitat





Order: ANSERIFORMES

(Ducks, Geese)

Family: DENDROCYGNIDAE

Size

42 cm

Status

W

Breeding Season

Monsoon



Lesser Whistling-Duck

(*Dendrocygna javanica*)

अडई



Family: ANATIDAE



**Northern
Pintail**
(*Anas acuta*)
तलवार बदक

Size : 51-56 cm
Status: **W**

Habitat



Common Teal
(*Anas crecca*)
चक्रांग बदक

Size : 34-38 cm
Status: **W**



Habitat





Family: ANATIDAE



Indian
Spot-billed Duck
(*Anas
poecilorhyncha*)
हळदी कुंकू बढक

Size : 58-63 cm

Status: **R**

Habitat



Gadwall
(*Anas strepera*)
मलिन बढक

Size : 39-43 cm

Status: **W**



Habitat





Family: ANATIDAE



Garganey
(*Anas querquedula*)
भुवई बदक

Size : **41 cm**
Status: **W**

Habitat



Northern Shoveller
(*Anas clypeata*)
थापाट्या बदक

Size : **51 cm**
Status: **W**



Habitat





Family: ANATIDAE



Mallard
(*Anas platyrhynchos*)
चतुरंग बदक

Size : 61 cm

Status: **W**

Habitat



Ruddy
(Brahminy)
Shelduck
(*Tadorna ferruginea*)
चक्रवाक

Size : 61 cm

Status: **W**

Habitat





Family: ANATIDAE



Comb Duck
(*Sarkidiornis melanotos*)

नकटा बदक

Size : 56 to 76 cm

Status: **R**



Habitat



Common Shelduck
(*Tadorna tadorna*)
शाही चक्रवाक

Size : 55 to 65 cm

Status: **PV**



Habitat





Family: ANATIDAE



**Red- crested
Pochard**
(*Rhodonessa rufina*)
मोठी लालसरी

Size : **50 to 60 cm**
Status: **W**

Habitat



**Common
Pochard**
(*Aythya ferina*)
छोटी लालसरी

Size : **40 to 50 cm**
Status: **W**

Habitat





Family: ANATIDAE



**Cotton Pigmy-
goose** (*Nettapus
coromandelianus*)

काणूक बदक

Size : 30 to 40 cm

Status: **R**

Habitat



**Red
naped Ibis**
(*Francolinus
pictus*)

रंगीत तित्तर

Size : 31 cm

Status: **R**



Habitat



Order: PICIFORMES

(Woodpeckers, Barbets)





Family: PICIDAE



Eurasian
Wryneck
(*Jynx torquilla*)
मानमोडी

Size : 19 cm

Status: **W**

Habitat



Yellow-crowned
Woodpecker
(*Dendrocopos
mehrattensis*)
पिवळ्या मुकुटाचा
सुतार

Size : 18 cm

Status: **R**



Habitat





Family: PICIDAE



**Golden-rumped
Flameback (*Dinopium
benghalense*)**
छोटा सोनपाठी
सुतार

Size : 29 cm

Status: **R**

Habitat



**Brown-capped
Pigmy Woodpecker**
(*Dendrocopos nanus*)
बुटका सुतार

Size : 12 to 13 cm

Status: **R**

Habitat





Family: PICIDAE



**Heart-spotted
Woodpecker**
(*Hemicircus canente*)

बदाम ठिपक्यांचा
सुतार

Size : 16 cm

Status: **R**

Habitat



**White-napped
Woodpecker**
(*Chrysocolaptes festivus*)

पांढऱ्या मानेचा
सोनपाठी सुतार

Size : 29 cm

Status: **R**



Habitat



Family: PICIDAE



**Common
Flame Back**
(*Dryocopus javensis*)
सामान्य सोनपाठी
सुतार

Size : 28 to 32 cm

Status: **R**

Habitat



**Lesser
Yellownape**
(*Picus chlorophus*)
पिवळ्या मानेचा
सुतार

Size : 27 cm

Status: **R**

Habitat





Family: PICIDAE



White-bellied
Woodpecker
(*Dryocopus javensis*)
पांढर्या पोटाचा

सुतार

Size : 40-48 cm

Status: **H**

Habitat



Family: MEGALAIMIDAE



Brown-headed
Barbet
(*Megalaima zeylanica*)
तपकिरी डोक्याचा
कुटूरगा

Size : 25 to 30 cm

Status: **R**



Habitat





Order: BUCEROTIFORMES
(Hornbills)



Family: BUCEROOTIDAE



**Indian
Grey Hornbill**
(*Ocyrceros birostris*)

भारतीय राखी

धनेश

Size : 50 to 60 cm

Status: **R**

Habitat



**Malabar
Pied Hornbill**
(*Anthracosceros coronatus*)

मलबारी कवड्या

धनेश

Size : 65 cm

Status: **R**



Habitat





Order: UPEPIFORMES

(Hoopoes)

Family: UPUPIDAE



Common Hoopoe (*Upupa epops*)

हुदहुद



Order: CORACIFORMES

(Rollers, Kingfishers, Bee-eaters)

Family: ALCIDINIDAE



Common Kingfisher
(*Alcedo atthis taprobana*)

सामान्य धीवर



Family: CORACIIDAE



**Indian
Roller (*Coracias
benghalensis*)**
भारतीय नीलपंख

Size : 30 to 35 cm

Status: **R**

Habitat



**Eurasian or
European Roller
(*Coracias
garrulus*)**

युरोपिअन नीलपंख

Size : 29 to 32 cm

Status: **PV**



Habitat





Family: HALCYONIDAE



White Throated
(breasted) Kingfisher
(*Halcyon smyrnensis*)

पांढऱ्या छातीचा
धीवर

Size : 27 to 28 cm

Status: **R**

Habitat

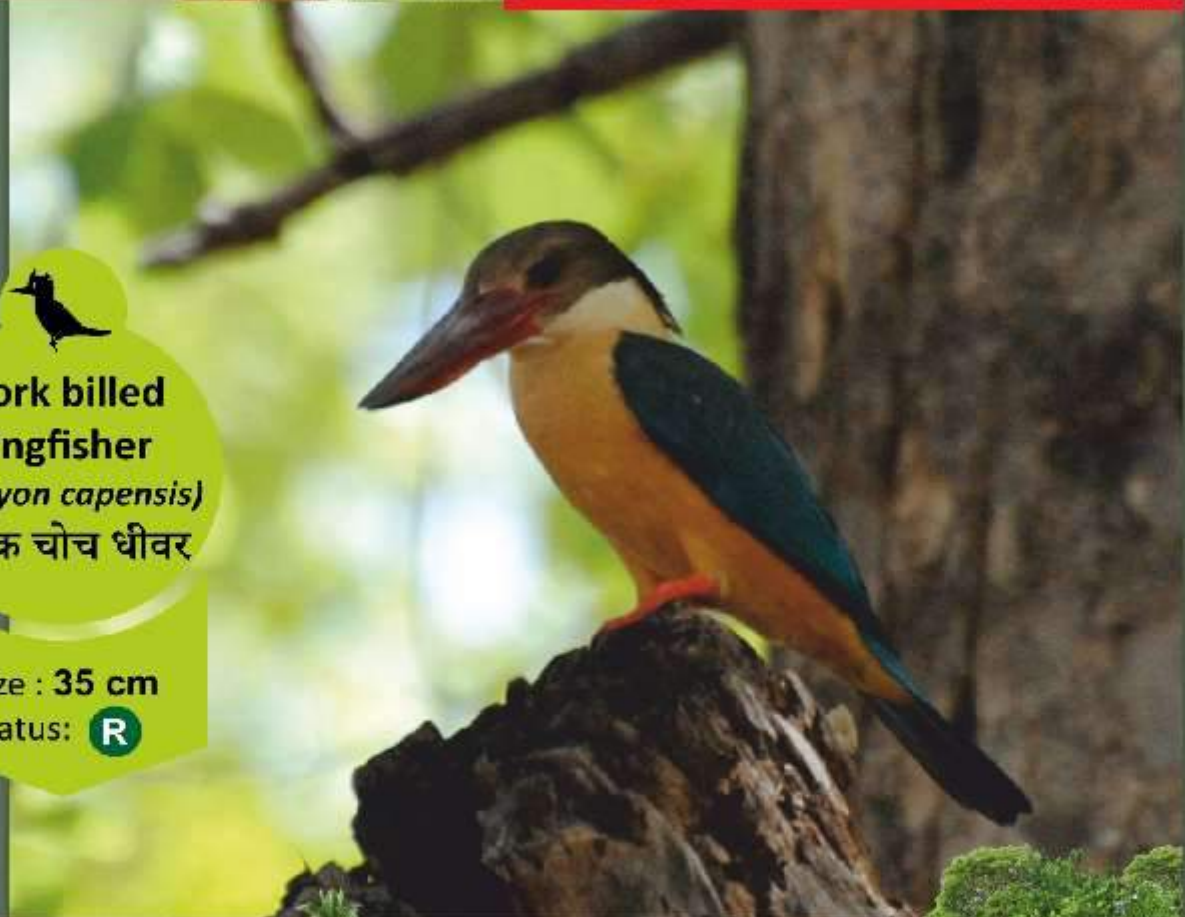


Stork billed
Kingfisher
(*Halcyon capensis*)

बलाक चोच धीवर

Size : 35 cm

Status: **R**



Habitat





Family: HALCYONIDAE



**Black-
Capped Kingfisher**
(*Halcyon pileata*)

काळ्या टोपीचा

धीवर

Size : 25 to 30 cm

Status: **R**

Habitat



Flameback Woodpecker



Family: CERYLIDAE



Pied Kingfisher

कवड्या धीवर

Family: MEROPIDAE



**Blue-tailed
Bee-eater**
(*Merops philippinus*)

निळ्या शेपटीचा

राघू

Size : 29 cm

Status: **BM**

Habitat



**Green
Bee-eater**
(*Merops orientalis*)
वेडा राघू

Size : 15 to 20 cm

Status: **R**

Habitat





Family: MEROPIDAE



**Blue-bearded
Bee eater**
(*Nyctyornis
athertoni*)

दाडीवाला राघू

Size : 30 to 35 cm

Status: **H**

Habitat



Blue Tailed Bee-Eater



280

Order: CUCULIFORMES

(Cuckoos)

Family: CUCULIDAE



Pied Cuckoos (*Clamator jacobinus*)

चातक



Family: CUCULIDAE



**Common
Hawk Cuckoo**
(*Hierococcyx varius*)

पावश्या

Size : 35 cm

Status: **R**

Habitat



Indian Cuckoo
(*Cuculus micropterus*)
भारतीय कोकिला

Size : 30 to 35 cm

Status: **BM**



Habitat





Family: CUCULIDAE



Eurasian
(common) Cuckoo
(*Cuculus canorus*)
सामान्य कोकिला

Size : 30 to 35 cm
Status: **BM**

Habitat



Lesser Cuckoo
(*Cuculus poliocephalus*)
छोटा कोकिला

Size : 25 cm
Status: **H**



Habitat





Family: CUCULIDAE



**Banded
Bay Cuckoo**
(*Cocomantis
sonneratii*)

पत्तेदार
कोकिला

Size : 20 cm

Status: **H**

Habitat



**Grey-
bellied Cuckoo**
(*Cocomantis
passerinus*)

कारुण्य कोकिला

Size : 18 to 25 cm

Status: **BM**

Habitat





Family: CUCULIDAE



Drongo-Cuckoo
(*Surniculus lugubris*)

कोतवाल

कोकिला

Size : 25 cm

Status: **LC**

Habitat



**Chestnut
winged Cuckoo**
(*Clamator jacobinus*)

लाल पंखाचा

चातक

Size : 35 to 45 cm

Status: **PV**



Habitat





Family: CUCULIDAE



Asian Koel
(*Eudynamys scolopacea*)
कोकिला

Size : 40 to 45 cm
Status: **LC**

Habitat



Blue
Faced Malkoha
(*Phaenicophaeus viridirostris*)
निळ्या चेहेऱ्याचा
मुंगश्या

Size : 40 cm
Status: **LC**



Habitat





Family: CUCULIDAE



Sirkheer
Malkoha
Taccocua
(*Phaenicophaeus*
leschenaultii)
लाल चोचीचा
मुन्गश्या

Size : 45 cm

Status: **R**

Habitat



River Tern



Family: CENTROPODIDAE

Southern Coucal *Centropus (sinensis) Parroti*



भारद्वाज

Family : PSITTACIDAE



Alexandrine Parakeet
(*Psittacula eupatria*)

करन पोपट



Family: PSITTACIDAE



**Rose-ringed
Parakeet**
(*Psittacula
krameri*)

पोपट

Size : 35 to 45 cm

Status: **R**

Habitat



**Plum-headed
Parakeet**
(*Psittacula
cyanocephala*)

टोई पोपट

Size : 30 to 35 cm

Status: **LC**

Habitat



Order: STRIGIFORMES

Family: STRIGIDAE



Forest Owlet (*Heteroglaux blewitti*)

रान पिंगळा



Forest Owlet



Family: STRIGIDAE



**Oriental
Scops-owl**
(*Otus sunia*)
प्राच्य शिंगळा

घुबड

Size : 18 to 22 cm

Status: **LC**

Habitat



**Eurasian
Scops-Owl**
(*Otus scops*)
युरेशियन शिंगळा

घुबड

Size : 60 to 70 cm

Status: **LC**



Habitat





Family: STRIGIDAE



**Dusky
Eagle-owl**
(*Bubo coromandus*)

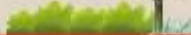
काळसर हुमा

घुबड

Size : 47 to 52 cm

Status: **R**

Habitat



**Brown
Fish- Owl**
(*Ketupa zeylonensis*)

मासेमार घुबड

Size : 120 to 140 cm

Status: **R**



Habitat





Family: STRIGIDAE



**Indian Scops
Owl (*Otus
bakkamoena*)**
कंठेरी शिंगळा

घुबड

Size : 22 to 25 cm

Status: **R**

Habitat



**Indian
or Eurasian
Eagle-Owl
(*Bubo bubo*)**

हुमा घुबड

Size : 60 to 70 cm

Status: **R**



Habitat





Family: STRIGIDAE

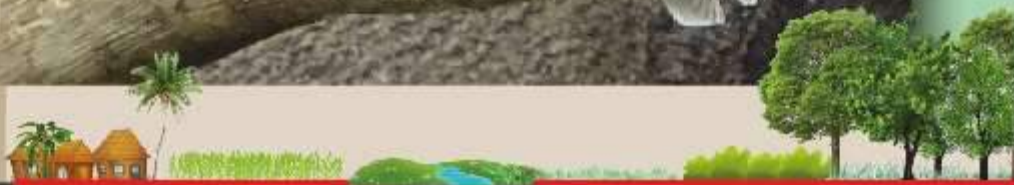


Spotted
Owlet
(*Athene brama*)
ठिपके वाला
पिंगळा

Size : 21 cm

Status: **R**

Habitat



Jungle Owlet
(*Glaucidium
radiatum*)
जंगली पिंगळा

Size : 20 to 22 cm

Status: **R**



Habitat





Family: STRIGIDAE



**Mottled
Wood Owl**
(*Strix ocellata*)
चट्टेरी वन घुबड

Size : 40 to 50 cm
Status: **R**

Habitat



**Brown Wood
Owl** (*Strix
leptogrammica*)
तपकिरी वन घुबड

Size : 40 to 55 cm
Status: **R**



Habitat





Family : TYTONIDAE

Common Barn Owl (*Tyto alba*)





Family: STRIGIDAE



**Brown
Hawk- Owl**
(*Ninox scutulata*)

बहिरी घुबड

Size : 25 to 30 cm

Status: **R**

Habitat



**Short
-eared Owl**
(*Asio flammeus*)

छोट्या कानाचे

घुबड

Size : 35 to 40 cm

Status: **W**

Habitat





Family: CAPRIMULGIDAE



**Grey (Indian
Jungle) Nightjar**
(*Caprimulgus
indicus*)

रान रातवा

Size : 21 to 25 cm

Status: **R**

Habitat



Indian Nightjar
(*Caprimulgus
asiaticus*)

सामान्य रातवा

Size : 24 cm

Status: **R**



Habitat





Family: CAPRIMULGIDAE



**Savanna
Nightjar**
(*Caprimulgus affinis*)
फ़्रानक्लीन चा
रातवा

Size : 20 to 25 cm

Status: **R**

Habitat





Order: COLUMBIFORMES

(Pigeons)

Family: COLUMBIDAE



Yellow-footed Green Pigeon
(Treron Phoenicopterus chlorigaster)

पिवळ्या पायाची हरोली



Family : COLUMBIDAE



Rock Pigeon
(*Columba livia*)

पारवा

Size : 60 to 70 cm

Status: **R**

Habitat



**Oriental
Turtle Dove**
(*Streptopelia
orientalis
erythrocephala*)

खवलेदार होला

Size : 30 to 35 cm

Status: **R**



Habitat





Family : COLUMBIDAE



**Eurasian
Collared-Dove**
(*Streptopelia
decaocto*)
कंठवाला होला

Size : 45 to 55 cm
Status: **R**

Habitat



**Red Collared-
Dove** (*Streptopelia
tranquebarica*)
लालपंखी होला

Size : 20 to 25 cm
Status: **R**

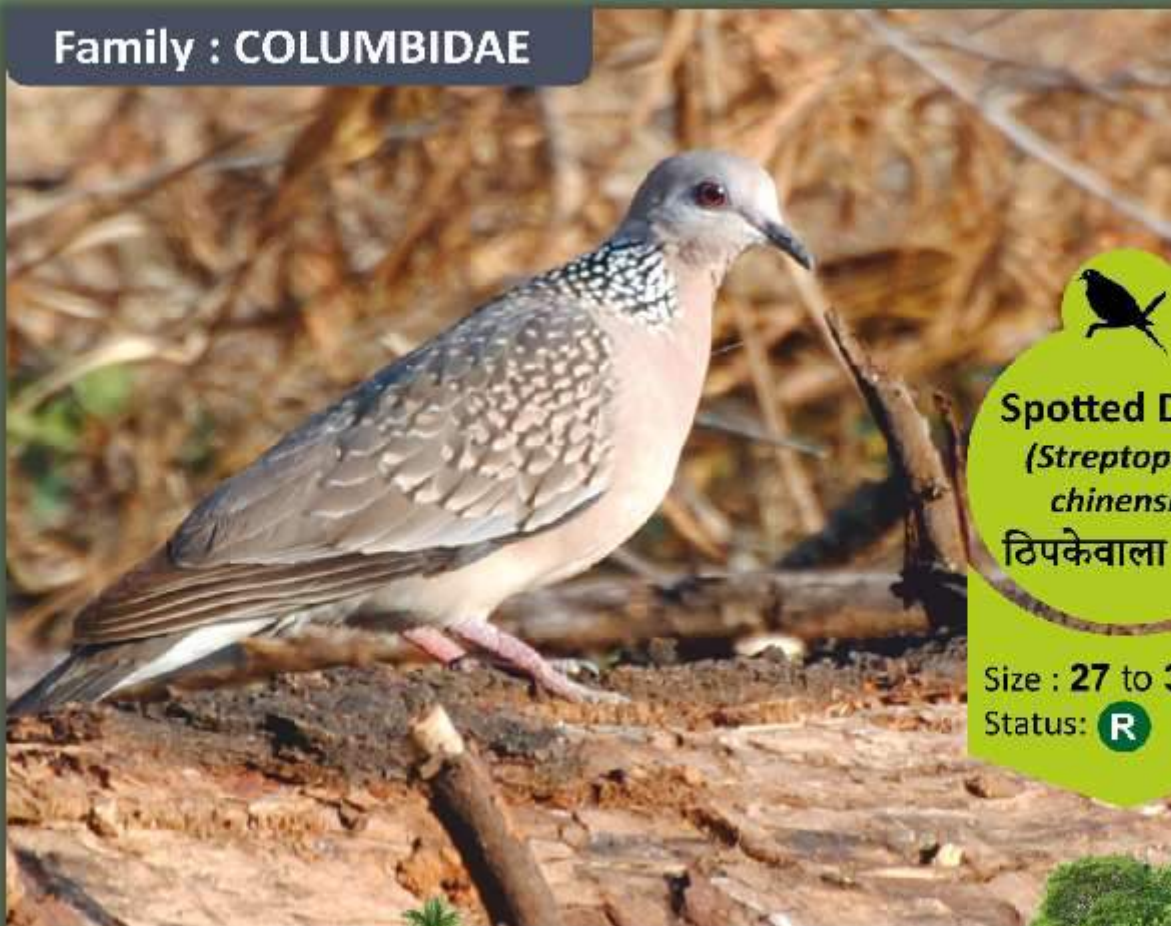


Habitat





Family : COLUMBIDAE



Spotted Dove
(*Streptopelia*
chinensis)

ठिपकेवाला होला

Size : 27 to 30 cm

Status: **R**

Habitat



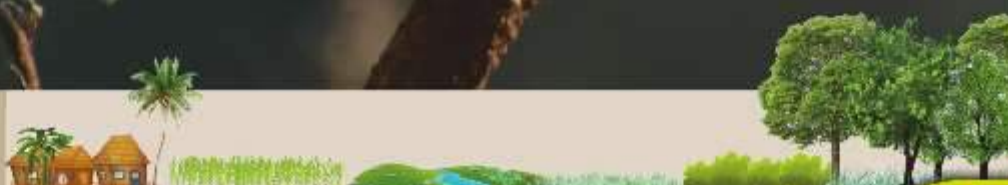
Laughing
(Little Brown)
Dove (*Streptopelia*
senegalensis)
छोटा तपकिरी
होला

Size : 25 to 30 cm

Status: **R**



Habitat





Family : ACCIPITRIDAE
(Raptors)



Crested Hawk-Eagle
(*Spizhaetus cirrhatus*)

मोर चार



Family : ACCIPITRIDAE



Black Kite
(*Milvus migrans*)
घार

Size : 45 to 65 cm
Status: **R**

Habitat



Brahminy Kite
(*Haliastur indus*)
समुद्री घार

Size : 45 to 50 cm
Status: **?**



Habitat





Family : ACCIPITRIDAE



Osprey
(*Pandion*
haliaetus)

कैकर

Size : 55 to 60 cm

Status: **W**

Habitat



Black-shouldered Kite
(*Elanus caeruleus*)
कापसी

Size : 30 to 35 cm

Status: **R**



Habitat





Family : ACCIPITRIDAE



**Crested
Goshawk**
(*Accipiter
trivirgatus*)
तुरेवाला ससाणा

Size : 30 to 45 cm

Status: ?

Habitat



Shikra
(*Accipiter badius*)
शिक्रा

Size : 50 to 70 cm

Status: **R**



Habitat





Family : ACCIPITRIDAE



**Egyptian
Vulture**
(*Neophron
percnopterus*)
पांढरे गिधाड

Size : 55 to 70 cm

Status: ?

Habitat



**Red-headed
Vulture**
(*Sarcogyps calvus*)
राजा गिधाड

Size : 75 to 85 cm

Status: **H**



Habitat



Family : ACCIPITRIDAE



**Cinereous
Vulture**

*(Aegypius
monachus)*

काळे गिधाड

Size : 106 to 110 cm

Status: **V**

Habitat



**Eurasian
Sparrow Hawk**
*(Accipiter nisus
nisosimilis)*

युरेशियन चीमनमार
ससाणा

Size : 30 to 60 cm

Status: **W**



Habitat





Family : ACCIPITRIDAE



**White-
Rumped Vulture**
(*Gyps bengalensis*)
पांढऱ्या पुठ्याचे
गिधाड

Size : **75 to 90 cm**
Status: **H**

Habitat



Indian Vulture
(longbilled)
(*Gyps indicus*)
लांब चोचीचे गिधाड

Size : **31 cm**
Status: **H**



Habitat



Family : ACCIPITRIDAE



**Bonelli's
Eagle**
(*Hieraaetus
fasciatus*)
बोनेलीचा गरुड

Size : 65 to 70 cm

Status: **R**

Habitat



Tawny Eagle
(*Aquila rapax*)
पिंगट गरुड

Size : 60 to 75 cm

Status: **R**



Habitat





Family : ACCIPITRIDAE



Black Eagle
(*Ictinaetus*
malayensis)
काळा गरुड

Size : 65 to 80 cm
Status: **W**

Habitat



Pallid Harrier
(*Circus macrourus*)
पांढुरका भोवत्या

Size : 40 to 50 cm
Status: **W**



Habitat





Family : ACCIPITRIDAE



**Short-toed
Snake Eagle**
(*Circaetus gallicus*)

आखूड बोटांचा

सर्प गरुड

Size : 60 to 70 cm

Status: **R**

Habitat



**Crested
Serpent Eagle**
(*Spilornis cheela*)

तुरेवाळा सर्प

गरुड

Size : 50 to 75 cm

Status: **R**

Habitat





Family : ACCIPITRIDAE



**Oriental
Honey Buzzard**
(*Pernis
ptilorhyncus*)

मधुबाज

Size : 50 to 70 cm

Status: **R**

Habitat



**White-
eyed Buzzard**
(*Butastur teesa*)
तिसा

Size : 35 to 45 cm

Status: **R**

Habitat





Family : ACCIPITRIDAE



**Long-legged
Buzzard**
(*Buteo rufinus*)
लांब पायाचा बाज

Size : 50 to 65 cm

Status: **V**

Habitat



Kestral



Family : FALCONIDAE



Common Kestrel
(*Falco tinnunculus*)

सामान्य खरुची



Family : FALCONIDAE



Lesser Kestrel
(*Falco naumanni*)

छोटा खरुची

Size : 30 to 35 cm

Status: **PV**

Habitat



**Eurasian
Hobby**
(*Falco subbuteo*)

धुतर ससाणा

Size : 30 to 35 cm

Status: **W**



Habitat





Family : FALCONIDAE



Laggar Falcon
(*Falco jugger*)
लग्गड ससाणा

Size : 40 to 45 cm
Status: **R**

Habitat



**Red-necked
(headed) Falcon**
(*Falco chicquera*)
लाल डोक्याचा
ससाणा

Size : 30 to 35 cm (M)
Size : 65 to 70 cm (F)
Status: **R**



Habitat



Family : PHALACROCORACIDAE



Little Cormorant
(*Phalacrocorax niger*)

छोटा पानकावळा



Family : FALCONIDAE



**Indian
Cormorant**
(*Phalacrocorax
fuscicollis*)
भारतीय
पानकावळा



Size : 63 cm
Status: **R**

Habitat



**Great
Cormorant**
(*Phalacrocorax
carbo*)
मोठा पानकावळा

Size : 80 cm
Status: **R**



Habitat





Family : ARDEIDAE - Egrets, Herons



Intermediate (Median) Egret
(Mesophoyx intermedia)

मध्यम बगळा



Family : ARDEIDAE



Little Egret
(*Egretta garzetta*)

लहान बगळा

Size : 63 cm

Status: **R**

Habitat



**Great
(Large) Egret**
(*Casmerodius albus*)

मोठा बगळा

Size : 91 cm

Status: **R**

Habitat





Family : ARDEIDAE



Cattle Egret
(*Bubulcus ibis*)

गाय बगळा

Size : 81 cm

Status: **R**

Habitat



Grey Heron
(*Ardea cinerea*)

राखी बगळा

Size : 98 cm

Status: **R**

Habitat





Family : ARDEIDAE



Purple Heron
(*Ardea purpurea*)

जांभळा बगळा

Size : 97 cm

Status: **R**

Habitat



Striated Heron
(Little green)
(*Butorides striatus*)
हिरवी ढोकरी

Size : 44 cm

Status: **R**



Habitat





Family : ARDEIDAE



**Cinnamon
Bittern**
(*Ixobrychus
cinnamomeus*)
बदामी तापास

Size : **33 cm**

Status: **R**

Habitat



**Yellow
Bittern**
(*Ixobrychus sinensis*)
पिवळा तापास

Size : **38 cm**

Status: **R**



Habitat





Family : ARDEIDAE



**Indian
Pond Heron**
(*Ardeola grayii*)
ढोकरी

Size : 46 cm

Status: **R**

Habitat



**Black-
Crowned
Night Heron**
(*Nycticorax
nycticorax*)
रात ढोकरी

Size : 58 cm

Status: **R**



Habitat





Family: PHOENICOPTERIDAE - Ibis

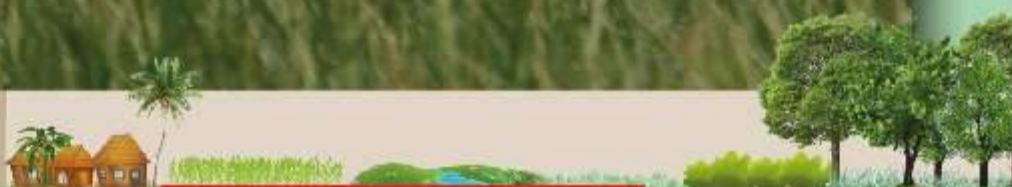



**Black -
headed Ibis**
(*Threskiornis
melanocephalus*)
काळ्या डोक्याचा
शराटी

Size : 75 cm

Status: **R**

Habitat



Habitat





Family : ARDEIDAE



Black Bittern

*(Dupetor
flavicollis)*

काळा तापस

Size : 58 cm

Status: **R**

Habitat



Mix Flock of Woollyneck Stork and Ibis

Family: CICONIIDAE - Storks



Painted Stork
(*Myeteria leucocephala*)

रंगीत करकोचा



Family: CICONIIDAE - Storks



Asin Openbill

(*Anastomus
oscitans*)

उघडचोच

करकोचा

Size : 81 cm

Status: **W**

Habitat



Black Stork
(*Ciconia nigra*)

काळा करकोचा

Size : 106 cm

Status: **W**



Habitat





Family: CICONIIDAE - Storks



Woolly-necked Stork
(*Ciconia episcopus*)

पांढर्या मानेचा

करकोचा

Size : 106 cm

Status: **R**

Habitat



White Stork
(*Ciconia ciconia*)
पांढरा करकोचा

Size : 81 cm

Status: **R**

Habitat





Order: PASSERIFORMES

Family : PITTIDAEZ



Indian pitta
(*Pitta brachyura*)

नवरंग

Family: IRENIDAE



**Jerdon's
Leafbird**
(*Chloropsis
cochinchinensis*)
जेर्दन्चा पर्ण पक्षी

Size : 18 cm

Status: **R**



Habitat



**Golden
Fronted Leafbird**
(*Chloropsis aurifrons*)
सोनकपाली पर्णपक्षी

Size : 19 cm

Status: **R**



Habitat





Family: LANIIDAE



**Bay-backed
Shrike**
(*Lanius vittatus*)
उदिपाठीचा खाटिक

Size : 18 cm
Status: **R**

Habitat



**Long -
tailed Shrike**
(*Lanius Schach*)
लांब शेपटीचा
खाटिक

Size : 25 cm
Status: **R**



Habitat





Family: LANIIDAE



Brown Shrike
(*Lanius cristatus*)
तपकिरी खाटिक

Size : 19 cm
Status: **W**

Habitat



Silver Bill



Family: CORVIDAE



Rufos (Indian) Treepie
(*Dendrocitta vagabunda*)

टकाचोर



Family : CORVIDAE



House Crow
(*Corvus splendens*)
कावळा

Size : 43 cm
Status: **R**

Habitat



**Large-billed
(Jungle) Crow**
(*Corvus macrorhynchos*)
डोम कावळा

Size : 48 cm
Status: **R**



Habitat





Family : CORVIDAE



**Eurasian
Golden Oriole**
(*Oriolus oriolus*)

हळद्या

Size : 25 cm

Status: **R**

Habitat



**Black-
hooded Oriole**
(*Oriolus xanthornus*)
बुरखाधारी हळद्या

Size : 25 cm

Status: **R**



Habitat





Family : CORVIDAE



Ashy
Woodswallow
(*Artamus fuscus*)
राखाडी रान भिंगरी

Size : 19 cm

Status: **R**

Habitat



Large
Cuckoo-Shrike
(*Coracina macul*)
मोठा कोकीळ
खाटिक

Size : 28 cm

Status: **R**



Habitat





Family : CORVIDAE



Black headed
Cuckoo-Shrike
(*Coracina
melanoptera*)

काळ्या डोक्याचा
कोकीळ खाटिक

Size : 20 cm

Status: **R**

Habitat



Black-winged /
Pied Flycatcher-
Shrike

(*Hemipus picatus*)

कवड्या माशिमार

खाटिक

Size : 15 cm

Status: **R**



Habitat





Family : CORVIDAE



**Scarlet
Minivet**
(*Pericrocotus
flammeus*)
नारंगी गोमेट

Size : 20 cm

Status: **R**

Habitat



**Small
Minivet**
(*Pericrocotus
cinnamomeus*)
छोटा गोमेट

Size : 15 cm

Status: **R**



Habitat





Family : CORVIDAE



**White-
bellied Minivet**
(*Pericrocotus
erythropygius*)

पांढर्या पोटाचा

गोमेट

Size : 15 cm

Status: **R**

Habitat



**Black
Drongo**
(*Dicrurus
macrocerus*)

कोतवाल

Size : 31 cm

Status: **R**



Habitat





Family : CORVIDAE



Ashy Drongo
(*Dicrurus
leucophaeus*)
राखी कोतवाल

Size : 30 cm

Status: **R**

Habitat



White-
bellied Drongo
(*Dicrurus
caerulescens*)
पांढर्या पोटाचा
कोतवाल

Size : 24 cm

Status: **R**



Habitat





Family : CORVIDAE



Greater Racket-
tailed Drongo
(*Dicrurus
paradiseus*)
मोठा भृंगराज
कोतवाल

Size : 35 cm

Status: **R**

Habitat



White-
Spotted Fantail
(*Rhipidura albicollis*)
पांढर्या पोटाचा
कोतवाल

Size : 17 cm

Status: **R**



Habitat





Family : CORVIDAE



White-browed Fantail
(*Rhipidura aureola*)

पांढर्या भुवई ची
नाचन

Size : 33 cm

Status: **R**

Habitat




Asian
Paradise-
Flycatcher
(*Terpsiphone
paradisi*)
स्वर्गीय नर्तक

Size : 31 cm

Status: **R**



Habitat





Family : CORVIDAE



Common Iora
(*Aegithina tiphia*)
सुभग

Size : 14 cm
Status: **R**

Habitat



Common Woodshrike
(*Tephrodornis pondicerianus*)
रान खाटिक

Size : 16 cm
Status: **R**

Habitat



Family : MUSCICAPIDAE



Bluethroat
(*Luscinia svecica svecica*)

शंकर



Family : MUSCICAPIDAE



**Blue-capped
Rock Thrush**
(*Monticola
cinclorhynchus*)
निळ्या डोक्याचा
कस्तूर

Size : 17 cm

Status: **PV**

Habitat



**Blue
Rock Thrush**
(*Monticola
solitarius*)
नील कस्तूर

Size : 23 cm

Status: **W**



Habitat





Family : MUSCICAPIDAE



**Malabar
Whistling Thrush**
(*Myophonus
horsfieldii*)
मलबार शिळ

Size : 25 cm

Status: **R**

Habitat



**Orange-
headed Thrush**
(*Zoothera citrina*)
नारंगी डोक्याचा
कस्तूर

Size : 21 cm

Status: **R**



Habitat





Family : MUSCICAPIDAE



**Tickell's
Thrush**
(*Turdus unicolor*)
टीक्लेचा कस्तूर

Size : 33 cm

Status: **R**

Habitat



**Indian
Blackbird**
(*Turdus (merula)*
simillimus
nigropileus)
काळा कस्तूर

Size : 27 cm

Status: **R**



Habitat





Family : MUSCICAPIDAE



**Tickell's
Blue Flycatcher**
(*Cyornis tickelliae*)

टीक्लेचा निळा
माशिमार

Size : 14 cm

Status: **R**

Habitat



**Verditer
Flycatcher**
(*Eumyis thalassina*)

निलंग माशिमार

Size : 15 cm

Status: **W**



Habitat





Family : MUSCICAPIDAE



Red-
breasted
Flycatcher
(*Ficedula parva*)
लाल छातीचा
माशिमार

Size : 13 cm

Status: **W**

Habitat



Taiga
Flycatcher
(*Ficedula albicilla*)
लाल कंठाची
माशिमार

Size : 13 cm

Status: **W**



Habitat





Family : MUSCICAPIDAE



**Ultramarine
Flycatcher**
(*Ficedula
superciliaris*)
निळा माशिमार

Size : 10 cm

Status: **W**

Habitat



**Black and
Orange Flycatcher**
(*Ficedula nigrorufa*)
काळा नारंगी
माशिमार

Size : 31 cm

Status: **H**



Habitat





Family : MUSCICAPIDAE



Grey-headed Canary Flycatcher
(*Culicicapa ceylonensis*)
डोक्याची पिवळी माशिमार

Size : 9 cm

Status: **W**

Habitat



Asian Brown Flycatcher
(*Muscicapa dauurica*)
तपकिरी माशिमार

Size : 14 cm

Status: **W**

Habitat





Family : MUSCICAPIDAE



**Blue-throated
Flycatcher**
(*Cyornis
rubeculoides*)
नीलकंठ माशिमार

Size : 33 cm

Status: ?

Habitat



**Black-
naped Monarch**
(*Hypothymis azurea*)
काळ्या मानेचा आकाशी
माशिमार

Size : 16 cm

Status: **R**



Habitat





Family : MUSCICAPIDAE



**Siberian
Rubythroat**
(*Luscinia calliope*)
माणिक कंठ

Size : 33 cm

Status: **PV**

Habitat



**Oriental
Magpie Robin**
(*Copsychus saularis*)
दयाळ

Size : 20 cm

Status: **R**



Habitat





Family : MUSCICAPIDAE



**Indian
Robin**
(*Saxicoloides
fulicata*)
चीरक

Size : 16 cm

Status: **R**

Habitat



**Black
Redstart**
(*Phoenicurus
ochruros*)
काळा थीरथिरा

Size : 15 cm

Status: **W**

Habitat





Family : MUSCICAPIDAE



**Common
Stonechat**
(*Saxicola torquata*)
सामान्य गप्पीदास

Size : 13 cm

Status: **W**

Habitat



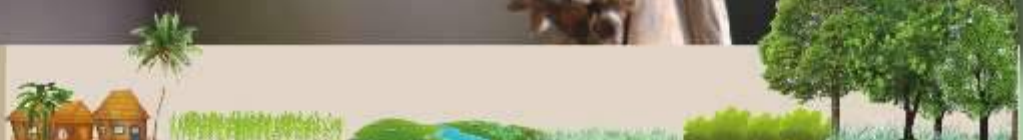
**Pied
Bush Chat**
(*Saxicola caprata*)
कवड्या गप्पीदास

Size : 13 cm

Status: **R**



Habitat



Family: STURNIDAE



Brahminy Starling
(*Sturnus pagodarum*)

भांग पाडी मैना



Family : STURNIDAE



**Chestnut -
tailed Starling
(Grey-headed)**
(*Sturnia malabarica*)
करड्या डोक्याची
मैना

Size : 21 cm

Status: **W**

Habitat



Rosy Starling
(*Sturnus roseus*)
गुलाबी मैना

Size : 23 cm

Status: **W**



Habitat





Family : STURNIDAE



Asian
Pied Starling
(*Sturnus contra*)

कवडी मैना

Size : 23 cm

Status: **R**

Habitat



Common
Myna
(*Acridotheres
tristis*)

साळुंकी

Size : 23 cm

Status: **R**



Habitat





Family : STURNIDAE



Bank Myna
(*Acridotheres*
ginginianus)
गंगा मैना

Size : 21 cm
Status: **R**

Habitat



Jungle Myna
(*Acridotheres*
fuscus)
जंगली मैना

Size : 23 cm
Status: **R**



Habitat



Family : SITTIDAEM



**Indian
Nuthatch**
(*Sitta castanea*)
बदामी पोटाची
शिलीन्घी

Size : 33 cm

Status: **R**

Habitat



**Velvet-
fronted Nuthatch**
(*Sitta frontalis*)
मखमली शिलीन्घी

Size : 31 cm

Status: **R**

Habitat





Family: CERTHIIDAE



Spotted Creeper
(*Salpornis spilonotus*)

ठीपके वाली सर्पिका

Family: PARIDAE



Great Tit
(*Parus major*)

कवडी रामगंगा



Family : PARIDAE



Fire
capped Tit
(*Cephalopyrus
flammiceps*)
नारंगी डोक्याचा
बदामी रामगंगा

Size : 33 cm

Status: **V**

Habitat



Indian
Yellow Tit
(*Parus
xanthogenys*)
पिवळी रामगंगा

Size : 14 cm

Status: **R**



Habitat



Family: HIRUNDINIDAE



Wire-tailed Swallow
(*Hirundo smithii*)

तारवाली भिंगरी



Family: HIRUNDINIDAE



Eurasian
(Pale) Crag Martin
(*Ptyonoprogne
rupestris*)
कडा पंकोली

Size : 33 cm

Status: **W**

Habitat



Dusky
Crag Martin
(*Hirundo concolor*)
धूसर कडा पंकोली

Size : 13 cm

Status: **R**



Habitat



Family: HIRUNDINIDAE



Plain Martin/
Grey-throated
Martin
(*Riparia paludicola*)
राखी कंठाची
पंकोली

Size : 33 cm

Status: **R**

Habitat



Common
Sand Martin
(*Riparia riparia*)
सामान्य पंकोळी

Size : 31 cm

Status: **W**



Habitat





Family: HIRUNDINIDAE



Pale
Sand Martin
(*Riparia diluta*)
फिक्कट पंकोली

Size : 33 cm

Status: **W**

Habitat



Northern
(Common)
House martin
(*Delichon urbicum*)
उत्तरी गृह
पंकोली

Size : 31 cm

Status: **W**



Habitat





Family: HIRUNDINIDAE



**Barn (Common)
Swallow**
(*Hirundo rustica*)
माळ भिंगरी

Size : 18 cm
Status: **W**

Habitat



**Red-
rumped Swallow**
(*Hirundo daurica*)
लाल बुद्धाची भिंगरी

Size : 23 cm
Status: **R**

Habitat





Family: HIRUNDINIDAE



Streak-
throated Swallow
(*Hirundo fluviicola*)

रेस्हाल कठाची
भिंगरी

Size : 33 cm

Status: **R**

Habitat



Brown capped pigmy woodpecker

Family: PYCNONOTIDAE



Red -vented Bulbul
(*Pycnonotus cafer*)

लाल बुघाच्या बुलबुल



Family: PYCNONOTIDAE



Red -
whiskered Bulbul
(*Pycnonotus jocosus*)
शिपाई बुलबुल

Size : 20 cm
Status: **R**

Habitat



White-
browed Bulbul
(*Pycnonotus luteolus*)
पांढर्या भुवई चा
बुलबुल

Size : 20 cm
Status: **R**

Habitat



Family: CISTICOLIDAE



Ashy Prinia
(*Prinia socialis*)

राखी वटवट्या



Family: CISTICOLIDAE



Zitting Cisticola
(*Cisticola juncidis*)

रेशाल वटवट्या

Size : 10 cm

Status: **R**

Habitat



Jungle Prinia
(*Prinia sylvatica*)

रान वटवट्या

Size : 15 cm

Status: **R**



Habitat





Family: CISTICOLIDAE



Plain Prinia
(*Prinia inornata*)
साधा वटवट्या

Size : 13 cm
Status: **R**

Habitat



Grey-breasted Prinia
(*Prinia hodgsonii*)
राखी छातीचा
वटवट्या

Size : 11 cm
Status: **R**



Habitat





Family: CISTICOLIDAE



Rufous-
fronted Prinia
(*Prinia buchanani*)
तपकिरी माथ्याच्या
वटवट्या

Size : 12 cm

Status: **R**

Habitat



Red avadavat



Family: ZOSTEROPIDAE

Oriental White-Eye
(*Zosterops palpebrosus*)

चष्मेवाला



Family: SYLVIIDAE



Common Tailorbird
(*Orthobomus sutorius*)

शिंपी



Family: SYLVIIDAE



Blyth's
Reed Warbler
(*Acrocephalus
dumetorum*)

ब्लीथ चा बोरु

वटवट्या

Size : 14 cm

Status: **R**

Habitat



Clamorous
Reed Warbler
(*Acrocephalus
stentoreus*)

दंगेखोर बोरु

वटवट्या

Size : 19 cm

Status: **W**



Habitat





Family: SYLVIIDAE



Booted Warbler
(*Hippolais caligata*)
पायमोज वटवट्या

Size : 33 cm

Status: **W**

Habitat



**Tickell's
Leaf Warbler**
(*Phylloscopus affinis*)
टिकेलचा पर्ण
वटवट्या

Size : 31 cm

Status: **R**



Habitat





Family: SYLVIIDAE



**Greenish
Warbler**
(*Phylloscopus
trochiloides*)
हिरवट वटवट्या

Size : 10 cm

Status: **W**

Habitat



**Hume's
Leaf Warbler**
(*Phylloscopus humei*)
ह्यूमचा पर्ण
वटवट्या

Size : 31 cm

Status: **W**



Habitat





Family: SYLVIIDAE



**Tytler's
Leaf Warbler**
(*Phylloscopus tytleri*)

टायातलर पर्ण

वटवळ्या

Size : 33 cm

Status: **W**

Habitat



**Sulpher-
bellied Warbler**
(*Phylloscopus
griseolus*)

पिवळ्या पोटाचा

वटवळ्या

Size : 11 cm

Status: **W**



Habitat





Family: SYLVIIDAE



**Common
Chiff Chaff**
(*Phylloscopus
collybita*)
चीपचीप

Size : 33 cm
Status: **W**

Habitat



**Striated
Grassbird
(Marsh Warbler)**
(*Megalurus
palustris*)
रेखांकित गवती
वटवट्या

Size : 31 cm
Status: **H**



Habitat





Family: SYLVIIDAE



Golden-Spectacled Warbler
(*Seicercus burkii*)
सोनेरी चष्म्याचा
वटवट्या

Size : 33 cm

Status: **H**

Habitat



Orphean Warbler
(*Sylvia hortensis*)
काळटोप
वटवट्या

Size : 31 cm

Status: **W**



Habitat





Family: SYLVIIDAE



Lesser
Whitethroat
(*Sylvia curruca*)

छोटा शुभ्रकंठी

वटवट्या

Size : 12 cm

Status: **W**

Habitat



Puff-Throated
(Spotted) Babbler
(*Pellorneum ruficeps*)

ठीपकेवाला

सातभाई

Size : 15 cm

Status: **R**



Habitat





Family: SYLVIIDAE



**White-Browed
(Hodgson's)
Scimitar-babbler**
(*Pomatorhinus
schisticeps*)
पांढर्या भुवई चा
सातभाई

Size : 33 cm

Status: **R**

Habitat



Tawny-Bellied Babbler
(*Dumetia hyperythra*)
भुर्या पोटाचा
सातभाई

Size : 31 cm

Status: **R**

Habitat





Family: SYLVIIDAE



Yellow-
eyed Babbler
(*Chrysomma sinense*)
पिवळ्या डोळ्याच्या
सातभाई

Size : 18 cm

Status: **R**

Habitat



Common
Babbler
(*Turdoides caudatus*)
सामान्य
सातभाई

Size : 23 cm

Status: **R**

Habitat





Family: SYLVIIDAE



**Large
Grey Babbler**
(*Turdoides
malcolmi*)
राखी सातभाई

Size : 28 cm

Status: **R**

Habitat



Jungle Babbler
(*Turdoides striatus*)
जंगली सातभाई

Size : 25 cm

Status: **R**



Habitat





Family: SYLVIIDAE



**Brown-
cheeked Fulvetta**

(*Alcippe
poioicephala*)

शिटीमार

रानभाई

Size : 33 cm

Status: **R**

Habitat



Small Green Bee eater





Family: ALAUDIDAE



Sykes's Lark
(*Galerida deva*)

साइक्सच्या तुरेवाला चंडोल

Family: ALAUDIDAE



Indian
(Red-winged)
Bush Lark
(*Mirafra erythroptera*)
लाल पंखी चंडोल

Size : 14 cm

Status: **R**

Habitat



Ashy-crowned
Sparrow Lark
(*Eremopterix grisea*)
चिमणा चंडोल

Size : 13 cm

Status: **R**

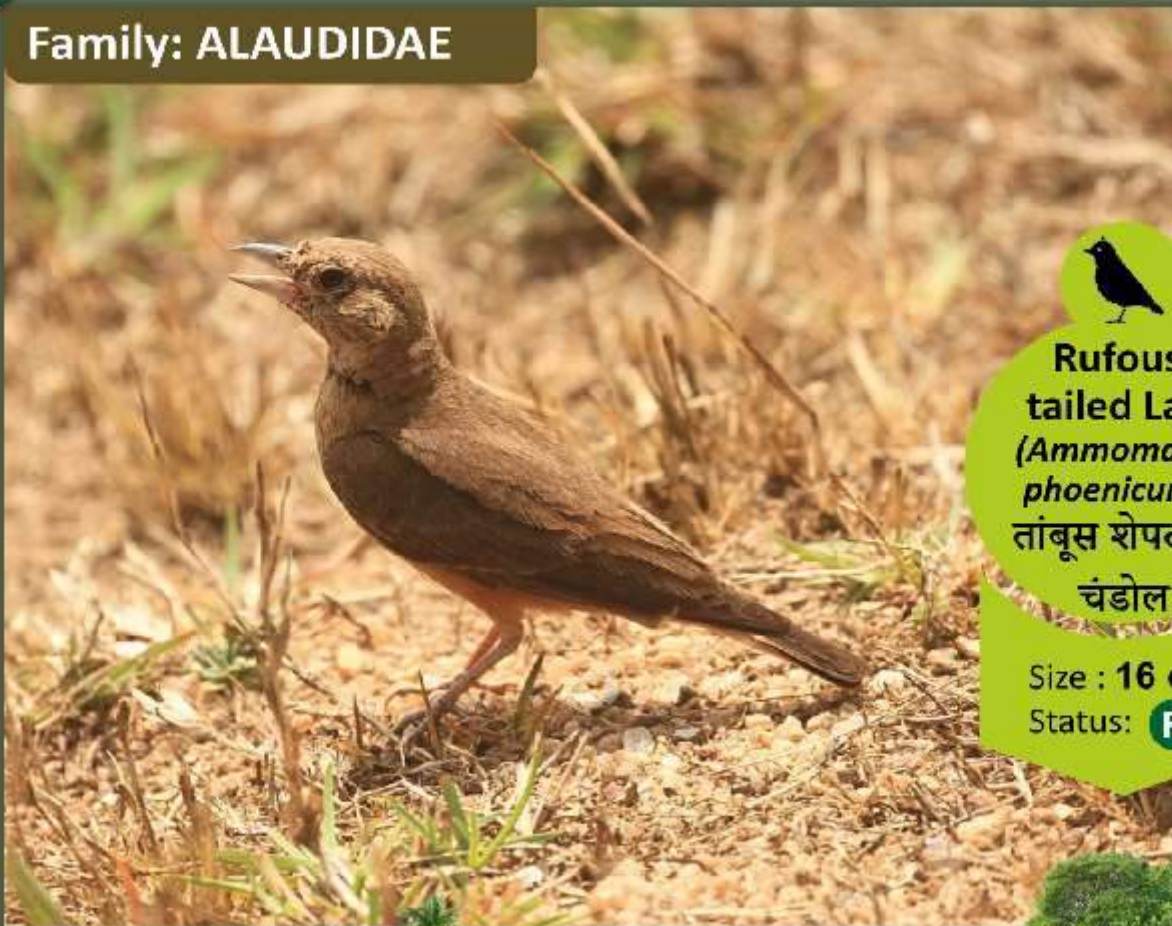


Habitat





Family: ALAUDIDAE



**Rufous-
tailed Lark**
(*Ammomanes
phoenicurus*)

तांबूस शेपटाचा
चंडोल

Size : 16 cm

Status: **R**

Habitat



**Greater
Short-toed Lark**
(*Calandrella
brachydactyla*)

आखूड बोटाचा
चंडोल

Size : 15 cm

Status: **W**



Habitat





Family : NECTARINIDAE



**Thick-Billed
Flowerpecker**
(*Dicaeum agile*)

जाड चोचीचा
फुलटोच्या

Size : 9 cm

Status: **R**

Habitat



**Pale-
Billed (Tickells)
Flowerpecker**
(*Dicaeum
erythrorhynchus*)
टिकेलचा फुलटोच्या

Size : 31 cm

Status: **R**



Habitat





Family : NECTARINIDAE



Purple-rumped Sunbird
(*Nectarinia zeylonica*)

जांबल्या पुळ्याच्या
शिंजीर

Size : 10 cm

Status: **R**

Habitat



Purple Sunbird
(*Nectarinia asiatica*)

जाम्बला शिंजीर

Size : 10 cm

Status: **R**



Habitat





Family: PASSERIDAE



White Wagtail
(*Motacilla alba*)
पांढरा धोबी

Size : 18 cm

Status: **W**

Habitat



**White
Browed Wagtail**
(*Motacilla
maderaspatensis*)
पांढर्या भुवई चा
धोबी

Size : 21 cm

Status: **R**



Habitat





Family: PASSERIDAE



Citrine Wagtail
(*Motacilla citreola*)

पिवळ्या डोक्याच्या
धोबी

Size : 17 cm

Status: **W**

Habitat



**Yellow
Wagtail**
(*Motacilla flava*)

पिवळा धोबी

Size : 25 cm

Status: **W**



Habitat





Family: PASSERIDAE



Paddyfield Pipit
(*Anthus rufulus*)
धान तीरचीमानी

Size : 15 cm
Status: **R**

Habitat



Richard's Pipit
(*Anthus richardi*)
रिचर्ड ची
तीरचीमानी

Size : 31 cm
Status: **W**



Habitat





Family: PASSERIDAE



Tree Pipit
(*Anthus trivialis*)
वृक्ष तीरचीमानी

Size : 33 cm
Status: **W**

Habitat

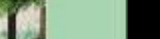


Olive-backed Pipit
(*Anthus hodgsoni*)
शेवाळी पाठीची
तीरचीमानी

Size : 15 cm
Status: **W**



Habitat





Family: PASSERIDAE



House Sparrow
(*Passer domesticus*)
चिमणी

Size : 15 cm
Status: **R**

Habitat



Chestnut-Shouldered
Petronia
(Yellowthroated
Sparrow)
(*Petronia
xanthocollis*)
पिवळ्या कंठाची
चिमणी

Size : 14 cm
Status: **R**



Habitat





Family: PASSERIDAE



Baya Weaver
(*Ploceus philippinus*)

सुगरण

Size : 15 cm

Status: **R**

Habitat



Streaked Weaver
(*Ploceus manyar*)

रेशाल सुगरण

Size : 31 cm

Status: **H**

Habitat





Family: PASSERIDAE



Red
Avadavat (Munia)
(*Amandava
amandava*)
लाल मुनिया

Size : 10 cm

Status: **R**

Habitat



Green
Avadavat (Munia)
(*Amandava formosa*)
हिरवी मुनिया

Size : 31 cm

Status: **R**



Habitat





Family: PASSERIDAE



**White-
Rumped Munia**
(*Lonchura striata*)

पांढर्या पुठ्याची
मनोली

Size : 10 cm

Status: **R**

Habitat



**Indian
Silverbill (White
Throated Munia)**
(*Lonchura malabarica*)

पांढर्या कंठाची
मनोली

Size : 10 cm

Status: **R**



Habitat





Family: PASSERIDAE



Scaly-
Breasted
(Spotted) Munia
(*Lonchura punctulata*)
ठिपके वाली
मनोली

Size : 10 cm

Status: **R**

Habitat



Indian Roller



Family : FRINGILLIDAE



Crested Bunting
(*Melophus lathamii*)

तुरेवाला भारीट



Family : FRINGILLIDAE



**Common
Rosefinch**
(*Carpodacus
erythrinus*)
गोरली

Size : 15 cm
Status: **W**

Habitat



**Grey-
Necked Bunting**
(*Emberiza buchanani*)
करड्या मानेचा
भारीट

Size : 15 cm
Status: **W**



Habitat





Family : FRINGILLIDAE



**Black-
Headed Bunting**
(*Emberiza
melanocephala*)
काळ्या डोक्याच्या
भारीट

Size : 18 cm

Status: **W**

Habitat



**Red-
Headed Bunting**
(*Emberiza bruniceps*)
तांबड्या डोक्याच्या
भारीट

Size : 25 cm

Status: **W**



Habitat





Family: RALLIDAE



**Whitebreasted
Waterhen**

(*Amanromis
phoenicurus*)

पांढऱ्या छातीची
पाणकॉबडी

Size : 39-43 cm

Status: **R**

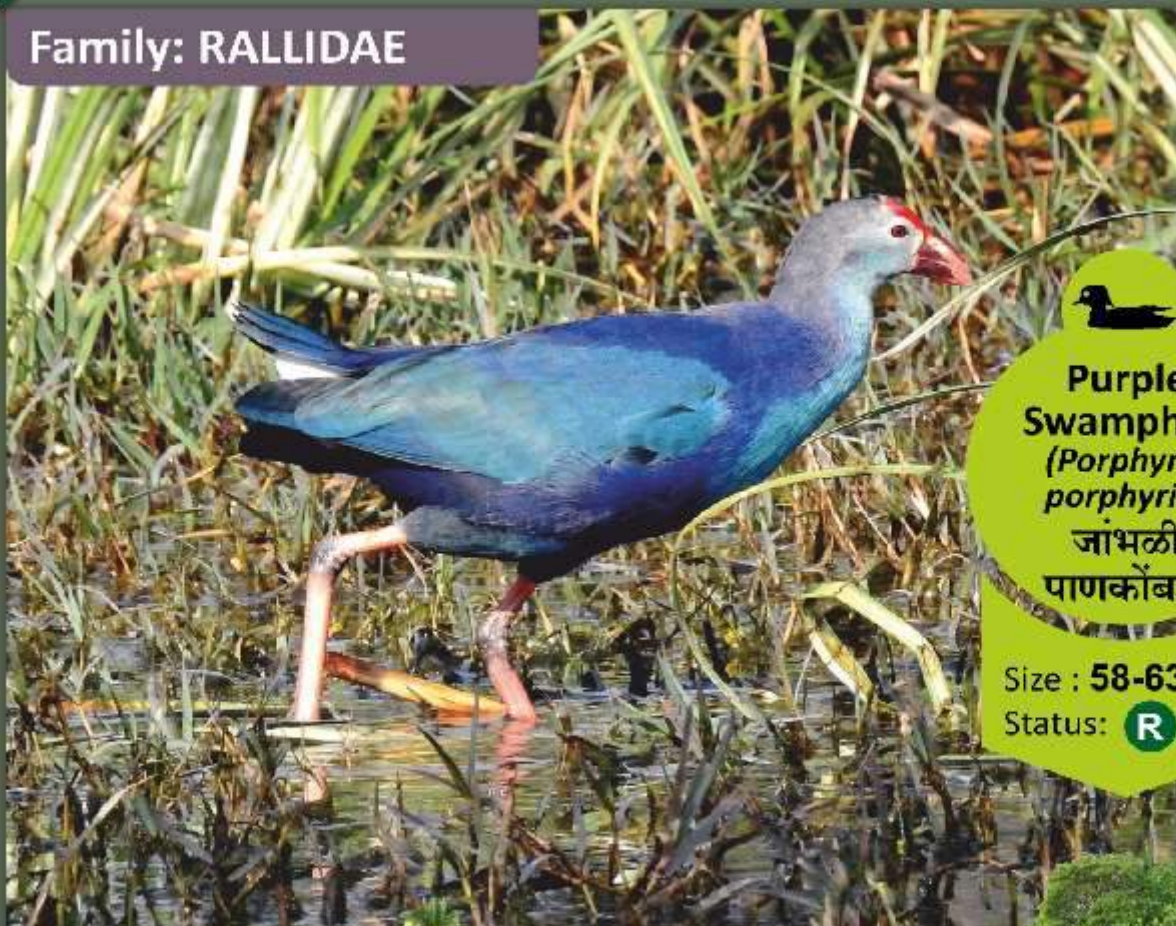
Habitat



Eurasian spoonbill



Family: RALLIDAE



**Purple
Swamphen**
(*Porphyrio
porphyrio*)

जांभळी
पाणकोंबडी

Size : 58-63 cm

Status: **R**

Habitat



**Common
(Eurasian) Coot**
(*Fulica atra*)
वारकरी

Size : 39-43 cm

Status: **R**



Habitat





Family: PTEROCLIDAE



Chestnut-Bellied Sandgrouse
(*Pterocles exustus*)
पाखुडी

Size : 58-63 cm

Status: **R**

Habitat



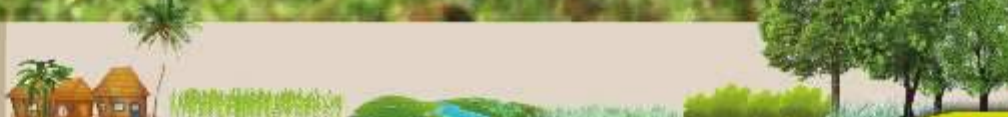
Painted Sandgrouse
(*Pterocles indicus*)
रंगीत पाखुडी

Size : 39-43 cm

Status: **R**



Habitat





Family: SCOLOPACIDAE



**Pintail
Snipe**
(*Gallinago
stenura*)
शंकु पाणलावा

Size : 58-63 cm

Status: **W**

Habitat



**Common
Snipe**
(*Limnocryptes
minimus*)
सामान्य टिलवा

Size : 39-43 cm

Status: **W**

Habitat





**Common
Greenshank**
(*Tringa nebularia*)
सामान्य हिरवा
टिलवा

Size : 58-63 cm

Status: **W**

Habitat



**Common
Redshank**
(*Tringa totanus*)
सामान्य टिलवा

Size : 39-43 cm

Status: **W**



Habitat





**Spotted
Redshank**
(*Tringa erythropus*)

ठिपक्यांचा टिलवा

Size : **58-63 cm**

Status: **W**

Habitat



**Wood
Sandpiper**
(*Tringa glareola*)
ठिपकेवाली तुतारी

Size : **39-43 cm**

Status: **W**



Habitat





**Green
Sandpiper**
(*Tringa Ochropus*)
हिरवी तुतारी

Size : **58-63 cm**
Status: **W**

Habitat



**Common
Sandpiper**
(*Actitis hypoleucos*)
सामान्य तुतारी

Size : **39-43 cm**
Status: **W**

Habitat





Family: BURHINIDAE



**Indian
Thick-Knee**
(*Burthinus
oedicnemus*) *indicus*
भारतीय करवानक

Size : 58-63 cm

Status: **R**

Habitat



**Great
Thick-Knee**
(*Esacus
recurvirostris*)
मोठा करवानक

Size : 39-43 cm

Status: **R**



Habitat



Family: CHARADRIIDAE



**Black-
Winged Stilt**
(*Himantopus
himantopus*)
शेकाट्या

Size : 58-63 cm

Status: **RM**

Habitat



**Pacific
Golden Plover**
(*Pluvialis fulva*)
सोन चिखल्या

Size : 39-43 cm

Status: **PV**



Habitat





**Little
Ringed Plover**
(*Charadrius dubius*)

छोटा कंठेरी
चिखल्या

Size : 58-63 cm

Status: **W**

Habitat



**Yellow-
Wattled Lapwing**
(*Vanellus
malabaricus*)

माळ टिटवी

Size : 39-43 cm

Status: **R**

Habitat





**River
Lapwing**
(*Venellus spinosus*)
नदी टिटवी

Size : **58-63 cm**
Status: **R**

Habitat



**Red-
Wattled Lapwing**
(*Venellus indicus*)
टिटवी

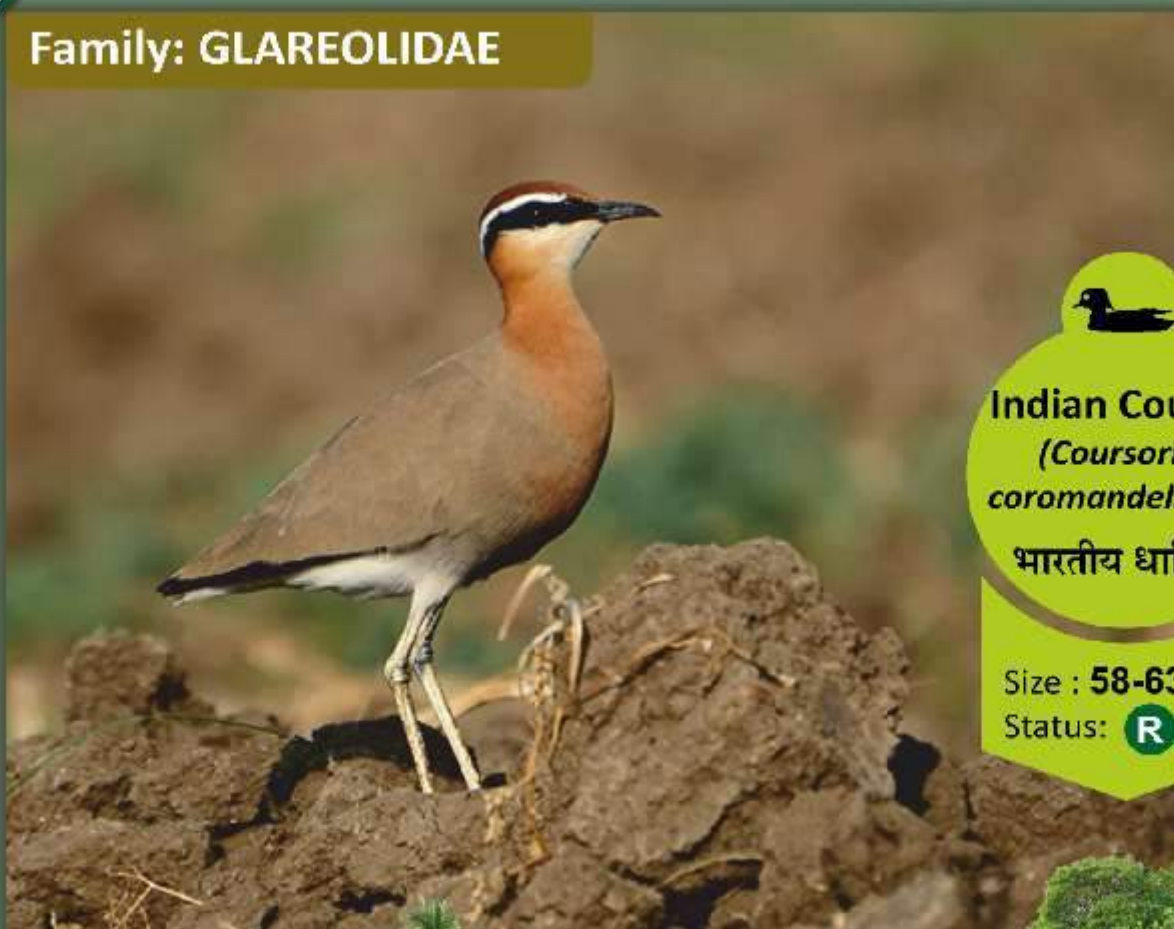
Size : **39-43 cm**
Status: **R**

Habitat





Family: GLAREOLIDAE



Indian Courser
(*Cursorius coromandelius*)

भारतीय धाविक

Size : 58-63 cm

Status: **R**

Habitat



Small Pratincole
(*Glareola lactea*)

छोटा आली

Size : 39-43 cm

Status: **R**



Habitat



Tracks and Signs



Tiger Pugmark

Track and Sign of Wildlife



Tiger Den



Porcupine Burrows



Pangolin Burrows

Track and Sign of Wildlife

Scat



Fresh



Old



Very Old



Tiger Rake Mark



Tiger Scrape Mark



Sloth bear footmark



Dug by Sloth bear



Sloth bear scat



Termite Queen Chamber





Chital



Sambar



Nilgai



Hare



Barking Deer



Chousingha



Goat



Gaur Dung



Nilgai Pile

Official Records and References:

- ◆ Tiger Conservation Plan, Melghat Tiger Reserve-Plan Period 2014-15 to 2023-24
- ◆ Mel Vyaghra- Melghat Tiger Reserve
- ◆ Three Decades of Project Tiger In Melghats- Oct 2004

Books:

- ◆ Birds Of The Indian Subcontinent, written by Richard Grimmett, Carol Inskipp, and Tim Inskipp (1998)
- ◆ Indian Mammals: A field Guide by Vivek Menon (2014)
- ◆ Coffee Table book, Melghat Tiger Reserve (2018)
- ◆ Snakes of India : The Field Guide by Romulus Whiteker & Ashok Captain (2015)
- ◆ The Book of Indian Butterflies by Isaac Kehimkar (2011)
- ◆ The Book of Indian Animals by S.H.Prater (2005)
- ◆ The Book of Indian Birds by Dr. Salim Ali (1996)
- ◆ The Tiger in India : A Natural History by J. C. Daniel (2001)
- ◆ Ranpingla: Owls and Owlet of Melghat by Melghat Tiger Reserve (2018)

Reference Papers:

- ◆ A.J.T. Johnsingh and S.P.Goyal., Tiger Conservation in India Past, Present and the Future 2005 pp1283
- ◆ Azra Musavi, Dependence of Local Communities on Forest Resources and its Implications for Protected Area Management in Melghat Tiger Reserve, Maharashtra, India
- ◆ Chauhan, D. S., Harihar, A., Goyal S. P., Qureshi, Q., Lal, P. R. and Mathur V. B. (2005). Estimating tiger population using camera traps in Ranthambore National Park . Wildlife Institute of India, Dehra Dun, India. Pp. 24.
- ◆ Chaudhary R, Management plan of Melghat Tiger Reserve, Plan period 2004-2005 to 2013-2014(volume-1)
- ◆ Erich D. Wikramanayake et. al.1998, An ecology-based method for defining priorities for large mammals conservation: The tiger as a case study

Bibliography & Reference

- ♦ Das, J.P., N.K. Nath, N. Brahma, S. Dey, B.P. Lahkar, P. Devi, R. Barman and B.K.Talukdar.2007. Conservation and Monitoring of Tiger population in Manas National Park through field techniques and capacity building of local stakeholders. Conservation Report Series 2007. Final Project Report under Rufford Small Grant Programme. Published by Aaranyak. 33 pp.
- ♦ Foster R.J and Harmsen B. J 2011, A Critique of Density Estimation From Camera-Trap Data
- ♦ http://en.wikipedia.org/wiki/Project_Tiger
- ♦ Harihar A.,Pandav B.,Goyal S.P., Sub sampling photographic capture-recapture data of tigers (*Panthera tigris*) to minimize closure violation and improve estimate precision: a case study
- ♦ J. Andrew Royle^{1*}, James D. Nichols¹, K. Ullas Karanth² and Arjun M. Gopalaswamy
- ♦ A hierarchical model for estimating density in camera-trap studies
- ♦ J. Andrew Royle, K. Ullas Karanth, Arjun M. Gopalaswamy and N. Samba Kumar(2009), Bayesian inference in camera trapping studies for a class of spatial capture–recapture models
- ♦ Karanth K.U. and Kumar N. S. (2005) Distribution and dynamics of tiger and prey populations in Maharashtra, India, Final Technical Report. Center for Wildlife studies, Bangalore, India
- ♦ Karanth K.U. The way of tiger (2001)
- ♦ Karanth K. U. and James D. Nichols, (2002) Monitoring tiger and their prey: A manual for researcher, managers and conservationist in tropical Asia
- ♦ Karanth. K.U., James D. Nichols, Samba Kumar and James E.Hines, (2006) Assessing tiger population dynamics using photographic capture recapture sampling
- ♦ Murray G. Efford¹ and Rachel M. Fewster², Estimating population size by spatially explicit capture–recapture
- ♦ R. Damania, J. Seidensticker, T. Whitten, G Sethi, K Mackinnon, A Kiss, and A Kushlin. 2008. A
- ♦ WWF Report 2012., How vulnerable are wild tigers to poaching in the sites critical for their survival?

Bibliography & Reference

- ◆ Future for Wild Tigers. Washington, D.C.: World Bank report.
- ◆ T.Ramesh, N.Shridharan, K.Sankar, Q.Qureshi, K.Muthamizh Selvan, N. Gokulakkannan, P.Francis, K. Narasimmarajan, Y.Jhala and R.Gopal, Status of large carnivores and their prey in tropical rainforests of South-western Ghats, India
- ◆ Y.V Jhala, Q. Qureshi, R.Gopal and P.R.Sinha(Eds) (2011) Status of the tigers, Co-predators, and prey in India , 2010. National Tiger Conservation Authority, Govt. of India, New Delhi, and Wildlife Institute of India, Dehradun TR2011/003pp-302

Websites:

- ◆ <http://www.ecoindia.com/animals/mammals/four-horned-antelope.html>
- ◆ <http://natureconservation.in/description-of-deer-axis-axis-spotted-deer/>
- ◆ <https://en.wikipedia.org/wiki/Chital>
- ◆ http://www.vncreatures.net/e_all/e_footpr.php
- ◆ <http://www.thetaxidermystore.com/axis-deer-skull-antler-european-taxidermy-mount-for-sale-14539.html>
- ◆ https://en.wikipedia.org/wiki/Four-horned_antelope
- ◆ https://en.wikipedia.org/wiki/Gray_langur
- ◆ https://en.wikipedia.org/wiki/Rhesus_macaque
- ◆ https://en.wikipedia.org/wiki/Wild_boar
- ◆ https://kids.kiddle.co/Wild_boar◆
- ◆ <http://www.ecoindia.com/animals/mammals/four-horned-antelope.html>
- ◆ <http://natureconservation.in/description-of-deer-axis-axis-spotted-deer/>
- ◆ <https://en.wikipedia.org/wiki/Chital>
- ◆ http://www.vncreatures.net/e_all/e_footpr.php
- ◆ <http://www.thetaxidermystore.com/axis-deer-skull-antler-european-taxidermy-mount-for-sale-14539.html>
- ◆ https://en.wikipedia.org/wiki/Four-horned_antelope
- ◆ https://en.wikipedia.org/wiki/Gray_langur
- ◆ https://en.wikipedia.org/wiki/Rhesus_macaque
- ◆ https://en.wikipedia.org/wiki/Wild_boar

Bibliography & Reference

- ◆ https://kids.kiddle.co/Wild_boar
- ◆ <http://www.ecoindia.com/animals/mammals/four-horned-antelope.html>
- ◆ <http://natureconservation.in/description-of-deer-axis-axis-spotted-deer/>
- ◆ <https://en.wikipedia.org/wiki/Chital>
- ◆ http://www.vncreatures.net/e_all/e_footpr.php
- ◆ <http://www.thetaxidermystore.com/axis-deer-skull-antler-european-taxidermy-mount-for-sale-14539.html>
- ◆ https://en.wikipedia.org/wiki/Four-horned_antelope
- ◆ https://en.wikipedia.org/wiki/Gray_langur

- ◆ https://en.wikipedia.org/wiki/Rhesus_macaque
- ◆ <https://snake-facts.weebly.com/russells-viper.html>
- ◆ <https://snake-facts.weebly.com/common-krait.html>
- ◆ <http://www.indiansnakes.org/content/dumerils-black-headed-snake>
- ◆ https://en.wikipedia.org/wiki/Ahaetulla_pulverulenta#/media/File:Ahaetulla_pulverulenta5.jpg
- ◆ <http://www.indiansnakes.org/content/g%C3%BCnthers-racer>
- ◆ <https://en.wikipedia.org/wiki/Porcupine>

- ◆ https://en.wikipedia.org/wiki/Wild_boar
- ◆ https://kids.kiddle.co/Wild_boar
- ◆ <https://en.wikipedia.org/wiki/Porcupine>
- ◆ <http://www.iucnredlist.org/details/16724/0>
- ◆ <https://www.worldlandtrust.org/species/mammals/indian-giant-flying-squirrel/>
- ◆ <http://eol.org/pages/985686/details>
- ◆ <http://www.iucnredlist.org/details/8978/0>
- ◆ http://animaldiversity.org/accounts/Gazella_bennettii/
- ◆ <https://defenders.org/gray-wolf/basic-facts>
- ◆ <https://en.wikipedia.org/wiki/Treeshrew>
- ◆ https://en.wikipedia.org/wiki/Bengal_fox

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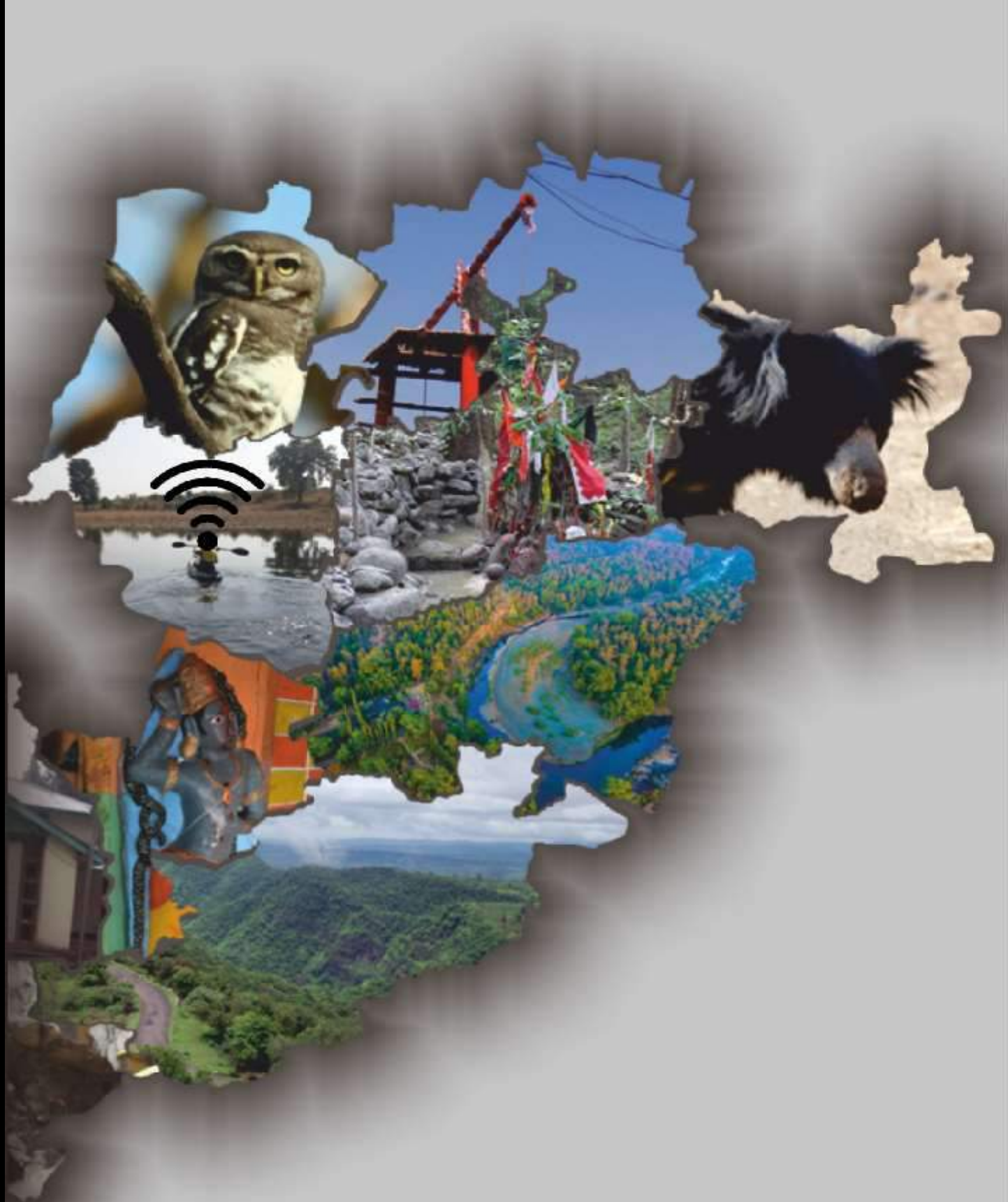
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**We still do not know one thousandth of
one percent of what nature has revealed to us.**

-Albert Einstein

