Azadi Ka Amrit Mahotsav

HERPETO-FAUNA OF JAMMU REGION

Department of Wildlife Protection,
Manda Hills, Near Hotel Ashok,
Jammu, J&K

0191-2572570 | www.jkwildlife.com

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सत्यमेव जयते

HERPETO-FAUNA OF JAMMU REGION

PICTORIAL GUIDE









COMPILED BY
AMIT SHARMA (ACF-WL)

DEPARTMENT OF WILDLIFE PROTECTION
J&K GOVT.



The Cover Picture of the Trinket snake (Coelognathus helena), the specific name of this snake, helena, is thought to be a reference to Helen of Troy, considered by many to be the epitome of beauty (Photo credit Amit Sharma).

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Dr. Arun Kumar Mehta, IAS

Chief Secretary, Jammu & Kashmir

सत्यमेव जयते

MESSAGE

The human welfare depends directly or indirectly on the services provided by ecosystems. The Herpeto-fauna i.e. amphibians and reptiles represent a high proportion of global species diversity and include species that are widely distributed in all the diverse ecosystems. The Herpeto-fauna performs variety of functions which are essential for the survival of the human beings on this planet.

The amphibians and reptiles are important component of the aquatic and terrestrial ecosystems and both serve as predators and prey in the food web. Snakes are, thus, an important component of the natural environment and without snakes, the number of prey species would increase to unnatural levels and destroy the stability of the ecosystem. Similarly, if the population of snakes is disturbed, the predators that eat snakes will struggle to find food. Similarly, each species has an important role to play in the ecosystem.

I am happy to know that Department of Wildlife Protection has made a pictorial guide of Herpeto-fauna of Jammu region. I hope this compilation shall serve as a ready reckoner for wildlife enthusiasts, students and public in general.

I compliment the officers of Wildlife Department for their efforts to bring out this publication.

Dr. Arun Kumar Mehta



Sanjeev Verma, IAS

Commissioner/Secretary to Government
Forest, Ecology and Environment Department
Jammu & Kashmir

सत्यमेव जयते

MESSAGE

Co-existence of varied life forms is indispensable to maintain a balance in the ecosystems. Herpeto-fauna comprising: reptiles and amphibians are important life forms for maintaining such a balance. Amphibians are animals, which thrive both on land and water. Reptiles like snakes and lizards play a very important role in the nature.

Department of Wildlife Protection has come up with a pictorial guide of Herpeto-fauna of Jammu region. This publication gives vivid account of various snakes, lizards, frogs, toads and turtles of Jammu region, alongwith their pictures. The compilation also shows some snake species, which have not been prominently reported, earlier.

I am sanguine that this compilation will serve as a very valuable guide for students, nature enthusiasts, field officers and wildlife managers.

I compliment Dr. Kumar M.K., Regional Wildlife Warden, Jammu and Shri Amit Sharma, Assistant Conservator of Forests (Wildlife), in equal measure, for their strenuous efforts to bring out this publication.

Sanjeev Verma



Suresh Kumar Gupta , IFS
Chief Wildlife Warden, Jammu & Kashmir

FOREWORD

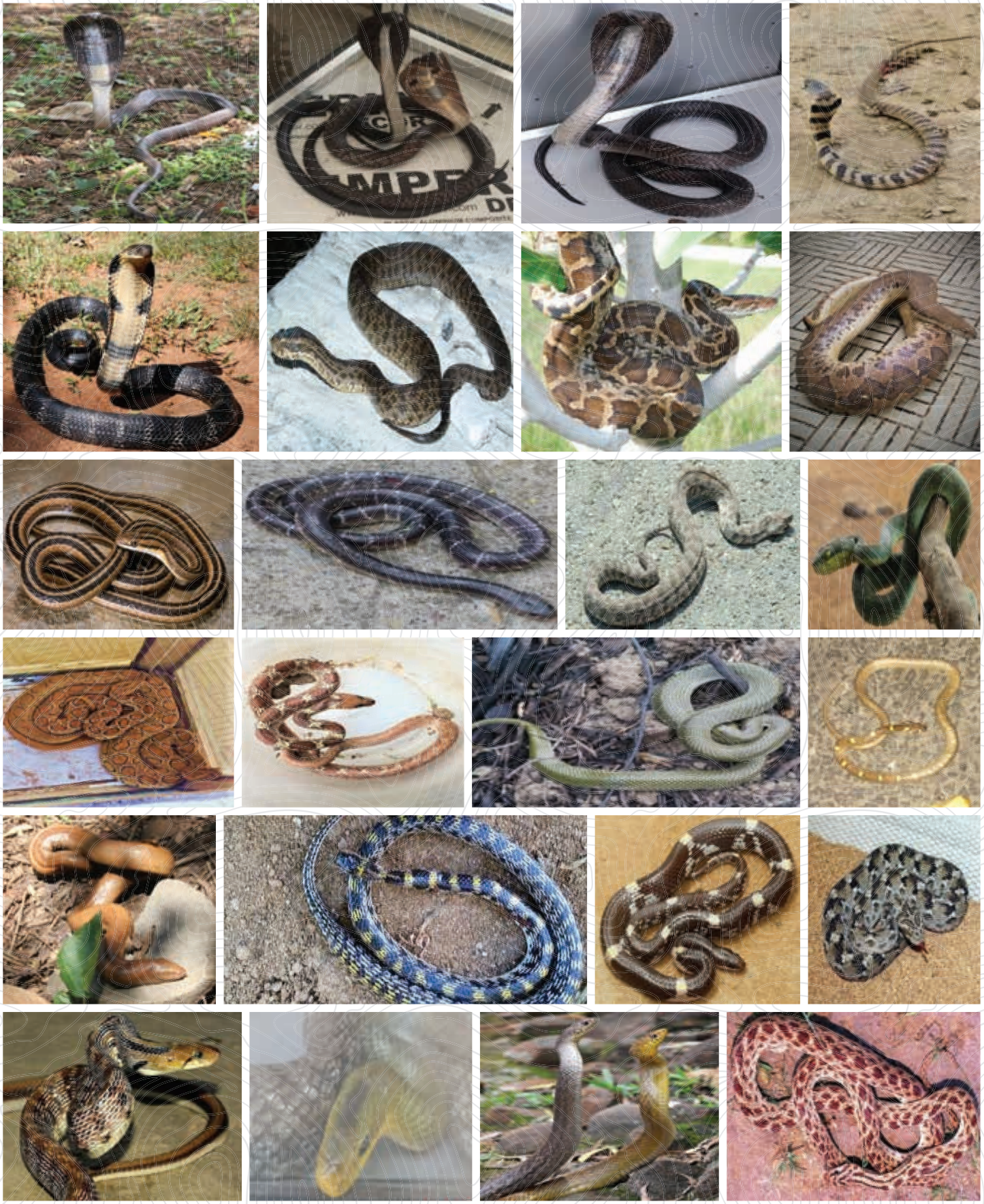
The Herpetofauna is one of the very important part of the Wildlife and plays an important role in our ecosystem balance, as they keep a check on pests, insects and vermins.

This pictoral guide is a compilation of 41 Snake species, 7 Turtle species, 2 Monitor Lizards and twenty seven Lizard/geckos/skink species, 6 toad and 11 frog species as a ready reckoner for the identification of these reptiles and amphibians. Among the forty one species of Snakes, the Bamboo Pit Viper, Green Keelback Snake, Yellow Speckled Wolf Snake, Himalyan Wolf Snake have been reported for the first time from Jammu & Kashmir.

This publication also tells about the Do's and Don'ts in case of Snake Bite and how to differentiate between the bite of a venomous or non-venomous snake bite. The fact that the snakes are being rescued during the winter season i.e. in the months of December, January and February also, could be due to climate change and global warming, the later needs elaborate scientifically investigation.

This compilation has been prepared by Sh. Amit Sharma (ACF-WL) under the guidance of Dr. Kumar M. K., Regional Wildlife Warden, Jammu. I appreciate and acknowledge the work of both the officers.

Suresh Kumar Gupta



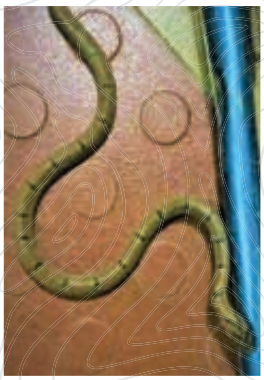


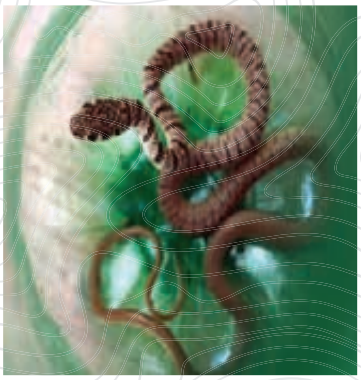


















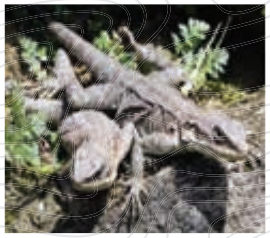






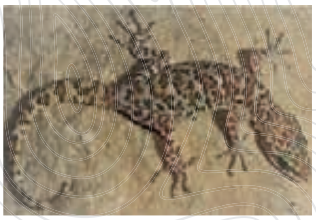




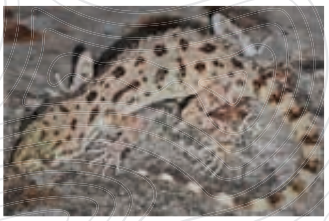










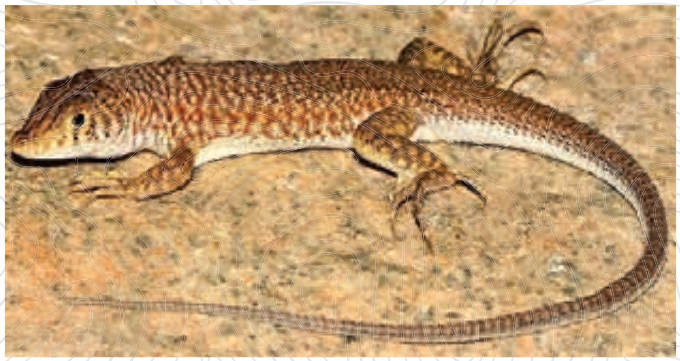








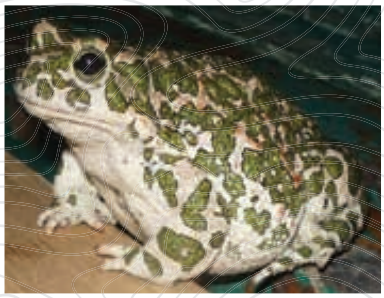


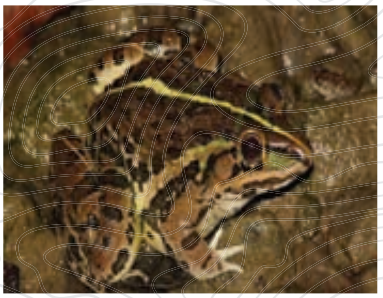









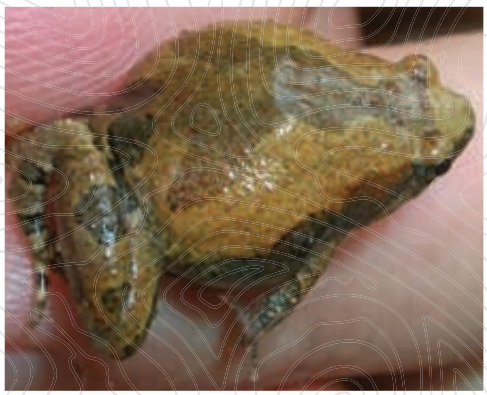













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S.No.	Name of the Snake Species	Scientific Name	Hindi Name
1	Indian Spectacled Cobra	*Naja naja naja*	Nag
2	Black Cobra	*Naja naja oxiana*	Kala nag
3	Central Asian Cobra	*Naja oxiana*	Nag
4	King Cobra	*Ophiophagus Hannah*	
5	Russell's Viper	*Daboia russelii*	Gana
6	Saw Scaled Viper	*Echis carinatus*	Afai
7	Bamboo Pit Viper	*Trimeresurus gramineus*	
8	Himalayan Pit Viper	*Gloydius himalayanus*	Pohur
9	Laventine Viper	*Macrovipera lebetina*	Gunas
10	Common Krait	*Bungarus caeruleus*	Karait
11	Leith' Sand Snake	*Psammophis leithii*	
12	Russell's Boa	*Gongylophis conicus*	Dumui
13	Red San Boa	*Eryx johnii*	Do muha
14	Indian Python	*Python molurus*	Sangni, Ajgar
15	Common Wolf Snake	*Lycodon aulicus*	Kauriala
16	Northern Wolf Snake	*Lycodon striatus*	
17	Himalayan Wolf Snake	*Lycodon mackinnoni*	
18	Yellow Speckled Wolf Snake	*Lycodon jara*	
19	Common Trinket Snake	*Coelognathus Helena*	
20	Himalayan Trinket Snake	*Elaphe hodgsoni*	
21	Oriental/Indian Rat Snake	*Ptyas mucosa*	Dhaman
22	Diadem/Red spotted Royal Snake	*Spalerosophis arenarius*	Rajitbansar
23	Blotched Royal Snake	*Spalerosophis diadem*	
24	Black Morph Royal Snake	*Spalerosophis diadem*	
25	Black headed Royal Snake	*Spalerosophis atriceps*	
26	Checkered Keelback Snake/Asiatic Water Snake	*Xenochrophis piscator*	
27	Buff Striped Keelback Snake	*Amphiesma stolatum*	
28	Himalayan/Mountane Keelback Snake	*Herpetoreas platyceps*	
29	Sikkim Keelback Snake	*Herpetoreas sieboldii*	
30	Green Keelback Snake	*Rhabdophis plumbicolor*	
31	Indian Gamma/Common Cat Snake	*Boiga trigonata*	
32	Many Banded Tree/Cat Snake		
33	Common Kukri Snake	*Oligodon arnensis*	
34	Brahminy Blind Snake	*Indotyphlops braminus*	
35	Slender Worm Snake	*Indotyphlops porrectus*	
36	Glossy-bellied Racer	*Platyceps ventromaculayus*	
37	Jan's Cliff Racer	*Platyceps rhodorachis*	
38	Braid Snake	*Platyceps ladacensis*	
39	Common Bronze Back Tree Snake	*Dendrelaphis tristis*	
40	Schokari Sand Racer	*Psammophis schokari*	
41	Cantor's Black Headed Snake	*Sibynophis Sagittarius*	

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S.No.	Name of the Turtle Species	Scientific Name	Hindi Name
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2	Indian/Ganges Softshell Turtle	*Nilssonia gangeticus*	
3	Brown Roofed Turtle	*Pangshura smithii*	
4	Indian Roofed Turtle	*Pangshura tecta*	
5	Black Pond Turtle	*Geoclemys hamiltonii*	
6	Peacock Softshell Turtle	*Nilssonia hurum*	
7	Indian Narrow-headed Softshell Turtle	*Chitra indica*	

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S.No.	Name of the Lizard Species	Scientific Name	Hindi Name
1	Yellow Monitor Lizard	*Varanus flavescens*	
2	Common Indian Monitor Lizard	*Varanus bengalensis*	
3	Common Leopard Gecko	*Eublepharis macularius*	
4	East Indian Leopard Gecko	*Eublepharis hardwickii*	
5	Himalayan Bent-toed Gecko	*Cyrtodactylus himalayanus*	
6	Indian Garden Lizard	*Calotes versicolor*	
7	Agror Agama	*Laudakia agrorensis*	
8	Kashmir Rock Agama	*Laudakia tuberculata*	
9	Himalayan Agama	*Paralaudakia himalayana*	
10	Himalayan Ground Skink	*Asymblepharus himalayanus*	
11	Ribbon-sided Skink	*Eurylepis taeniolatus*	
12	Common/Brahminy Skink	*Mabuya carinata*	
13	Himalayan Bent toed Gecko	*Cyrtodactylus himalayanus*	
14	Lawder's Bent toed Gecko	*Cyrtodactylus lawderanus*	
15	Frontier Bow fingered Gecko	*Cyrtodactylus stoliczkai*	
16	Salt Range Rock Gecko	*Cyrtopodion montiumsalsorum*	
17	Salt Range Rock Gecko	*Cyrtopodion scabrum*	
18	Brooke's or Spotted House Gecko	*Hemidactylus brooki*	
19	Yellow Belly Gecko of Northern House Gecko	*Hemidactylus flaviviridis*	
20	Pondicherry fan throated Lizard	*Sitana ponticeriana*	
21	Theobald's toad-headed agama/Snow Lizars	*Phrynocephalus theobaldi*	
22	Reticulated toad-headed agama	*Phrynocephalus reticulatus*	
23	Striped Grass Mabuya/ Skink	*Autropis dissimilis*	
24	Ladakh Ground Skink	*Asymblepharus ladacensis*	
25	Asian Snake-eyed Skink	*Ablepharus pannonicus*	
26	Indian Fringe Fingered Lizard	*Acanthodactylus cantoris*	
27	Jerdon's Snake Eye or Punjab Snake eye Lacerta	*Ophisops jerdoni*	

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S.No.	Name of the Toad Species	Scientific Name	Hindi Name
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2	Himalyan Toad	*Duttaphrynus Himalayan*	
3	Baltistan/Ladakh Banded Toad	*Duttaphrynus latastii*	
4	Asian black spined/Black spectacled/ Asian Common Toad	*Duttaphrynus melanostictus*	
5	Indian Marbled/Indian Valley Toad	*Duttaphrynus stomaticus*	
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S.No.	Name of the Frog Species	Scientific Name	Hindi Name
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3	Boie's wart Frog/Rice field frog/Asian Grass Frog	*Fejervarya limnocharis*	
4	Sikkim paa Frog/Spiny-armed Frog	*Nanorana liebigii*	
5	Himalayan paa Frog/Stoliczka's Frog	*Nanorana minica*	
6	Baluch Mountain Frog/Murray's Frog	*Chrysopaa sternosignata*	
7	Himalayan paa Frog/Stoliczka's Frog	*Nanorana vicina*	
8	Indian Burrowing Frog	*Sphaerotheca breviceps*	
9		*Scutiger nyingchiensis*	
10	Ornate narrow mouthed Frog	*Microhyla ornate*	
11	Marbled Balloon Frog	*Uperodon systoma*	

REFERENCES
AUTHORS

1.	Sahi, D. N. (1979)	A Contribution to the herpetology of Jammu and Kashmir, PhD Thesis submitted to the Jammu University
2.	Amit Manhas (2018)	Reptilian Diversity and Distribution in the Doda District of Jammu and Kashmir, India
3.	Dr. Sakshi Koul	Sighting of King Cobra, Ophiophagus Hannah a deadliest snake from district doda in J&k
4.	J.C. Daniel	The Book of Indian Reptiles and Amphibians
5.	WII	For Confirmation of the Identification
6.	GOI	The Wild Life (Protection) Act 1972
7.	Open Source	Internet or other books
8.	Facebook	The Snake identification Groups

Picture/Photo Credit of Snakes

S.No.	Name of the Photographer	Photo/Picture Plate Number in this compilation
1.	Dr. Kumar M. K. IFS	34
2.	Amit Sharma (ACF-WL)	1, 2, 5, 10,12, 13, 14 (left), 15 19 (right), 23, 24, 26, 31, 33 (left)
3.	Majid Bashir (ACF-WL)	3, 20 (left)
4.	Amit Manhas (PhD)	17, 29, 37 (left), 38
5.	Sanjeev (RO)	39 (left)
6.	Shubham Khajuria Birder	18 (Right), 30
7.	Open Source (internet, books etc.)	4, 6, 7, 8, 9, 11, 14 (right), 16, 18 (left), 19 (left), 20 (right), 21, 22, 25, 27, 28, 31, 32, 33 (right), 34, 35, 36, 37 (right), 39 (below), 40, 41. The photographs of these reptiles are either very low resolution or not available with the department.

Picture/Photo Credit of Turtles

S.No.	Name of the Photographer	Photo/Picture Plate Number in this compilation
1.	Dr. Kumar M. K IFS. Dheeraj Rampal (BO)	3
2.	Amit Sharma ACF-WL	1, 2
3	Open Source (internet, books etc.)	4, 5, 6, 7

Picture/Photo Credit of Lizards

S.No.	Name of the Photographer	Photo/Picture Plate Number in this compilation
1.	Amit Sharma ACF-WL	3, 13
2.	Rajinder Singh Birder	1
3.	Amit Manhas (PhD)	5, 6, 7, 8, 9, 10
4.	Shubham Khajuria Birder	4, 12
5.	Open Source	2, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27.

Picture/Photo Credit of Toads and Frogs

1	Amit Sharma ACF-Wl	Frog 1
		All other photographs of toads and frogs from open source.

Sketches Source

Kindpng.com, coloringAll.com, iheartcraftthings.com, clipart-library.com, istockphoto.com

Herpetology (from Greek herpetón, meaning "reptile" or "creeping animal" and logia meaning "knowledge) is the branch of zoology concerned with the study of amphibians (including frogs, toads, salamanders) and reptiles (including snakes, lizards, amphibians, turtles, terrapins, tortoises, crocodilians and tuatara).

Serpentes (Snakes) are legless, without eyelids and external ears, cold blooded having overlapping scales. They are found on every continent except Antarctica, additionally, sea snakes are widespread throughout the Oceans.

More than 20 families of snakes are currently recognized, comprising about 520 genera and about 3,600 species. Their length varies from the tiny 10.4 cm (4.1 in) to the reticulated python of 6.95 meters (22.8 ft) in length. Out of the 3600 known species, only 375 species are known to be venomous. Most species are nonvenomous and those that have venom, they use it primarily to kill and subdue prey rather than for self-defense. Some possess venom potent enough to cause painful injury or death to humans. Nonvenomous snakes either swallow prey alive or kill by constriction. Snakes are very important part of the eco-system.

India has vast potential and rich diversity of snake fauna of which 242 species have been identified including 52 venomous. Out of these 242 known species, most common 4 species are often refered as “Deadliest” i.e. Indian cobra, Common krait, Russell's viper and Saw-scaled viper; against these species Polyvalent anti venoms are readily available in Government hospitals.

The venom is modified saliva also called as “Super Saliva”, delivered through fangs. The venom of Vipers are hemotoxic and that of Cobra’s is Neurotoxic, while the Krait is known to the mixture of both the neurotoxic and hemotoxic venom. Snakes are highly specialized of all the reptiles in existence and the venomous snakes are the zenith of their specialization. Snakes use smell to track their prey. They smell by using their forked tongues to collect airborne particles, then passing them to the vomeronasal organ or Jacobson's organ in the mouth for examination. The fork in the tongue gives snakes a sort of directional sense of smell and taste simultaneously. They keep their tongues constantly in motion, sampling particles from the air, ground, and water, analyzing the chemicals found, and determining the presence of prey or predators in the local environment. The underside is very sensitive to vibration. This allows snakes to be able to sense approaching animals by detecting faint vibrations in the ground. Snakes are strictly carnivorous, eating small animals including lizards, frogs, other snakes, small mammals, birds, eggs, fish, snails or insects. Because snakes cannot bite or tear their food to pieces, they must swallow prey whole.

Any attack on Humans and domestic animals are not intentional but accidental biting, therefore awareness alone can prevent lot of such incidents and retaliatory killing of snakes.



SNAKES
OF JAMMU PROVINCE

Fenton (1910), recorded the snakes i.e. Himalayan Pit Viper, Levantine Viper and the Oriental Rat Snake. Das (1966) indicated that the reptiles of Kashmir were representa¬tive of Palearctic elements. Sharma and Sharma (1975) recorded 18 species of snakes from the state. The first extensive herpetological survey by Sahi (1979) listed seven species of turtles, 23 species of lizards, and 35 species of snakes from the state. Manhas et.al,. (2015) presented the first record of the Himalayan Wolf Snake from the Doda Region and recorded 17 species of squamate reptiles (seven species of liz-ards and ten species of snakes). According to Dr. Manhas et.al., the only species that has been assessed for the IUCN Red List (IUCN 2018) is the Sikkim Keelback Snake.

In all, 41 species of snakes of Jammu region have been identified and compiled in this booklet. The photographs used in compilation have been taken from various sources which have been duly acknowledged.

All the deadly four snakes i.e. Cobra, Russell's Viper, Saw Scaled Viper and Krait have their presence in J&K. The other venomous are Himalayan Pit Viper, Bamboo Pit Viper, Laventine Viper and Central Asian Cobra which represents the Paleo-oriental zoo geographical realm; the transition zone between the Paleo and Oriental zoo-geographical realms.

One species of snake i.e. Leith's sand snake is mildly venomous and all others are non-venomous.

VENOMOUS SNAKES



01.

Indian Cobra, Spectacled Cobra or Binocellate Cobra

(Naja naja naja)

Wildlife (Protection) Act of India: Sch.II Part II
Unique Identification: Impressive hood with two circular ocelli patterns connected by a curve line, evoking the image of Spectacles.

02.

Black Cobra

(Naja naja oxiana)

Wildlife (Protection) Act of India: Sch.II Part II
Unique Identification: Impressive hood without any circular ocelli.









03.

Central Asian/ Caspian Cobra

(Naja oxiana)

Wildlife (Protection Act of India: Sch. II Part I
Unique Identification: Juveniles have noticeable dark and light cross-bands of approximately equal width around the body.

04.

King Cobra

(Ophiophagus hannah)

Wildlife (Protection) Act of India: Sch. II
Unique Identification: The king cobra is the world's longest venomous snake, with an average length of 3.18 to 5.85 m, black with white stripes to unbroken brownish grey. It preys chiefly on other snakes, including its own species.





05.

Russell's Viper

(Daboia russelii)

Wildlife (Protection) Act of India: Sch. II Part II
Unique Identification: The head is flattened, triangular, and distinct from the neck. The color pattern consists of a deep yellow, tan, or brown ground color, with three series of dark brown spots that run the length of the body.

06.

Saw Scaled Viper

(Echis carinatus)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: They have a characteristic threat display, rubbing sections of their body together to produce a "sizzling" warning sound.





07.

Bamboo Pit Viper, Indian Green Pit Viper

(Trimeresurus gramineus)

Wildlife (Protection) Act of India: Sch. II Part II
Unique Identification: The upper parts are usually bright green, rarely yellowish, greyish, or purplish brown, with or without black, brown, or reddish spots.

08.

Himalayan Pit Viper

(Gloydius himalayanus)



Wildlife (Protection) Act of India: Sch. II Part II
Unique Identification: This is a highland snake and is found in altitudes ranging from 2,100 to 4,900 m. The head is distinctly wide and elongated, with symmetrically arranged large scales.



09.

Blunt-nosed Viper or Laventine Viper

(Macrovipera lebetina)

Wildlife (Protection) Act of India: Sch. II Part II
Unique Identification: The head is broad, triangular, and distinct from the neck. The snout is rounded and blunt when viewed from above, which is why it is also called the blunt-nosed viper.

10.

Common Krait or Blue Krait

(Bungarus caeruleus)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Colouration is black or bluish black with white crossbars which may be indistinct or absent anteriorly. The pattern is well defined in the young, in old individuals, the narrow white lines may be found as a series of connected spots.



NON VENOMOUS SNAKES



12.

Russell's Boa / Rough-Scaled/ Common Sand Boa

(Gongylophis conicus)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: The color pattern consists of a broad zigzag band or a series of dark brown blotches on a yellowish or brownish grey ground color. The belly is uniform white. The front and rear ends looks as two head of markedly different animals.

13.

Indian Sand Boa/John's Sand Boa/Red Sand Boa.

(Eryx johnii)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Adapted to burrowing, the head is wedge-shaped with narrow nostrils and very small eyes.





14.

Indian Python/ Indian Rock Python

(Python molurus)

Wildlife (Protection) Act of India: Sch. I Part II
Unique Identification: The rock python's color pattern is whitish or yellowish with the blotched patterns varying from tan to dark brown shades.

15.

Indian/ Common Wolf Snake

(Lycodon aulicus)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: The rock python's color pattern is whitish or yellowish with the blotched patterns varying from tan to dark brown shades.





16.

Northern Wolf/ Barred Wolf Snake

(Lycodon striatus)

Wildlife (Protection) Act of India: Sch. IV
Unique identification: dark brown or black above, with white transverse spots or crossbands, which are widely separated anteriorly.

17.

Himalayan Wolf Snake

(Lycodon mackinnoni)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: It is Brown, with a network of white lines. Ventrally, it is uniformly white or white with brown-edged ventrals





18.

Yellow Speckled Wolf Snake

(Lycodon jara)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Each scale with two white dots or short longitudinal lines. Upper part is brownish with yellow dots.

19.

Common Trinket Snake

(Coelognathus Helena helena)

Wildlife (Protection) Act of India: Sch.IV
Unique Identification: There is a vertical black streak below the eye and an oblique black streak behind the eye. It makes 2-3 shaped coils if disturbed for defence.





20.

Himalayan Trinket/ Hodgson's Rat Snake

(Elaphe hodgsoni)

Wildlife (Protection) Act of India: Sch. II
Unique Identification: Brownish-olive above, with most of the scales black-edged.

21.

Oriental Rat Snake, Indian Rat Snake

(Ptyas mucosa)

Wildlife (Protection) ct of India: Sch. II Part II
Unique Identification: Adult members of this species emit a growling sound and inflate their necks when threatened. This adaptation may represent mimicry of the king cobra or Indian cobra which overlaps this species in range.





22.

Red-spotted Royal or Diadem Snake

(Spalerosophis arenarius)

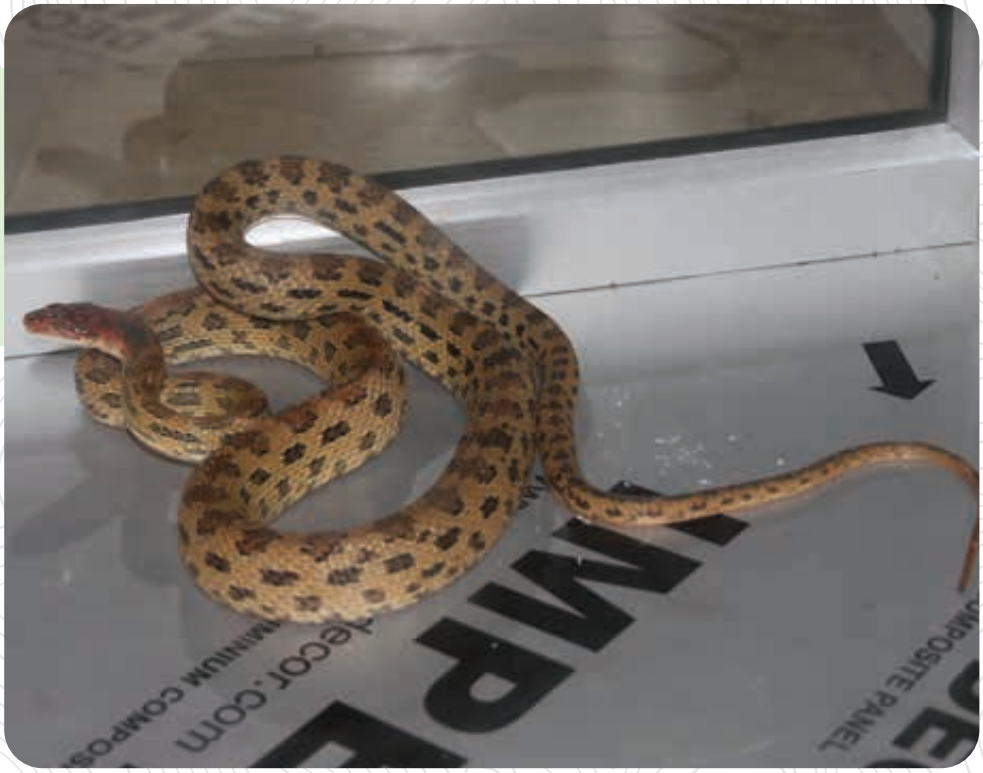
Wildlife (Protection) Act of India: Sch. IV

23.

Blotched Royal Snake

(Spalerosophis diadema var. diadema)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Adults are brown or fawn with three sets of large dorsal spots, alternate with smaller spots of the lateral series. Head light brown, spotted or motted with darker markings.





24.

Black Morph/ Melanistic Royal Snake

(Scientific name required)

25.

Black-headed Royal Snake

(Spalerosophis diadema var. atriceps)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Adult are buff, pinkish buff or pale brown. Head neck strawberry scarlet or scarlet. Belly uniform rose pink.



image changed



26.

Checkered Keelback/ Asiatic water snake

(Xenochrophis piscator)

Wildlife (Protection) Act of India: Sch. II Part II
Unique Identification: Body cylindrical olive brown in color with black spots arranged like ckeckered pattern. Occur close to water bodies.

27.

Buff Striped Keelback

(Amphiesma stolatum)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: The upper body has small black bars on an olive grey black ground with belly being white strips along the body which are very distinct towards tail. Small black lines below the eyes.





28.

Himalayan / Mountain Keelback

(Herpetoreas platyceps)

Wildlife (Protection) Act of India: Sch. IV

29.

Sikkim Keelback Snake

(Herpetoreas sieboldii)

Wildlife (Protection) Act of India: Sch. IV





30.

Green Keelback Snake

(Rhabdophis plumbicolor)

Wildlife (Protection)
Act of India: Sch. IV
Unique Identification: Stout, viper like body structure, young has an inverted black V mark on the neck reaching to the frontal shield and a second much smaller one behind, the intervening space being bright yellow or orange. Cross bars on the back and tail.

31.

Indian Gamma/ Common Cat Snake

(Boiga trigonata)

Wildlife (Protection)
Act of India: Sch. IV
Unique Identification: Flattened body with triangular head and large eyes with vertical purpil. An arrow head shaped mark on the head.





32.

Many-Banded Tree/Cat Snake

(Boiga multifasciata)

Wildlife (Protection) Act of India: Sch.IV
Unique Identification: Dorsally, grayish black crossbars and has series of whitish spots along the vetubral line. Ventrally, it is spotted or checkered with dark brown or black.

33.

Common Kukri/ Banded Kukri Snake

(Oligodon arnensis)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Neck and head with black arrowhead shaped mark.





34.

Brahminy Blind Snake

(Indotyphlops braminus)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: A tiny worm like snake, eyes appear like small black dots.

35.

Slender Worm Snake

(Indotyphlops porrectus)

Wildlife (Protection) Act of India: Sch. IV





36.

Glossy Bellied Racer/ Hard Wicke's Rat Snake

(Platyceps ventromaculatus)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Color range from olive-brown, olive green or dirty yellow.
It has a series of black rhomboidal cross bars on the back. The sides have similar smaller spots. The belly is yellow to white with glossy scales.

37.

Jan's Cliff Racer

(Platyceps rhodorachis)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Highly variable in external morphology.





38.

Braid Snake

(Platyceps ladacensis)

Wildlife (Protection) Act of India: Sch. IV

39.

Common Bronze Back Tree Snake

(Dendrelaphis tristis)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: A bronze coloured line running right down its back.







40.

V

(Psammophis schokari)

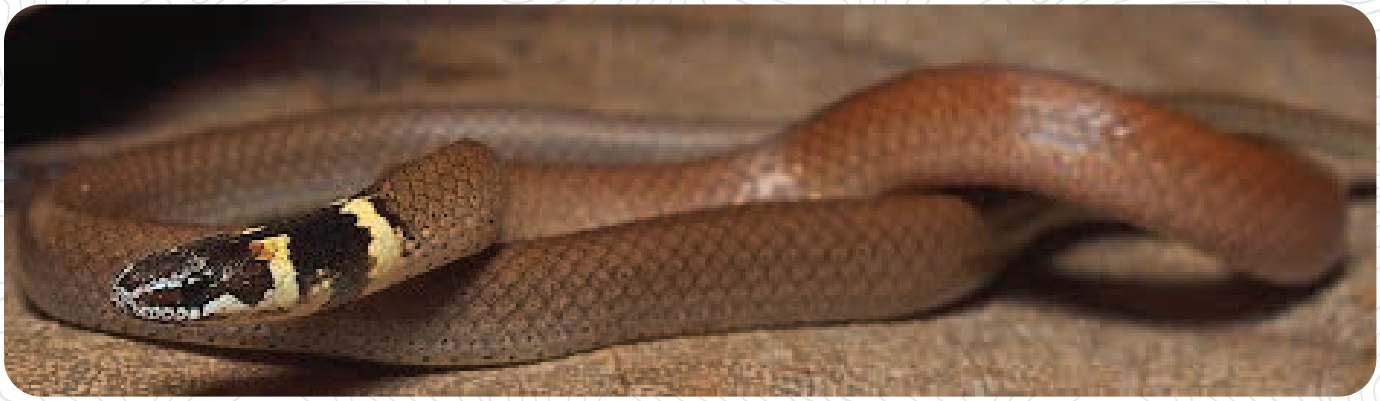
Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Striped with four dark longitudinal stripes or non-striped, plain or lightly dotted.

41.

Cantor's Black-Headed Snake

(Sibynophis Sagittarius)

Wildlife (Protection) Act of India: Sch. IV
Unique Identification: Head and neck region is black with a yellow upper part of the body is light brown with a series of small block dots on top.



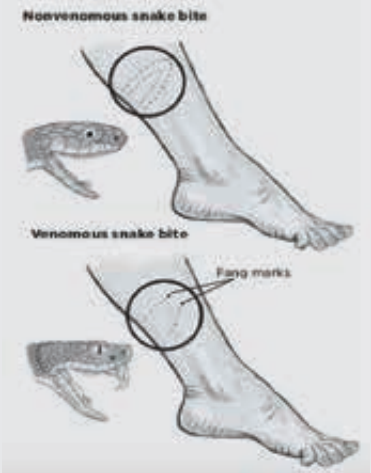
SNAKE BITE: DO'S & DON'TS

DON'T

- Take the patient to a tantrik or a snake charmer for treatment
- Suck the wound
- Cut the wound open
- Tie ligatures around the wound
- Burn the wound
- Apply herbal pastes over the wound

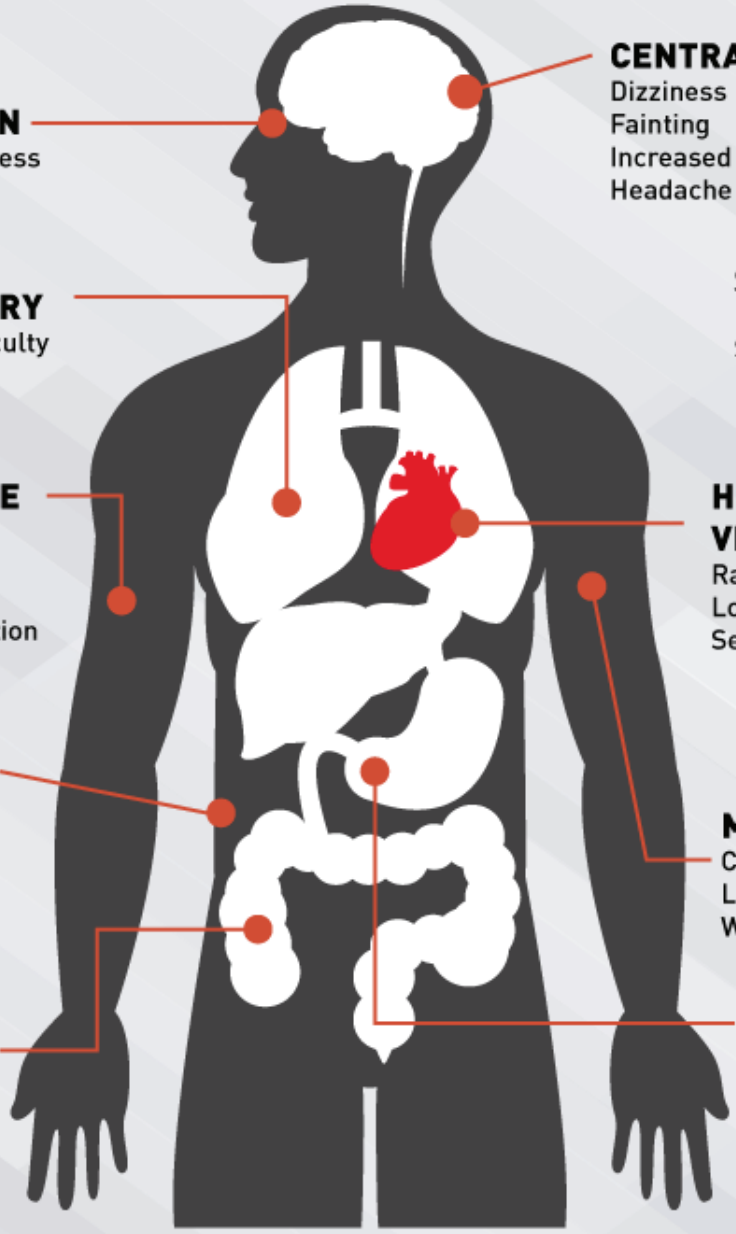
DO

- Immobilize the affected limb
- Rush the patient to the nearest hospital that can deliver Anti-Snake Venom and emergency care





GENERAL SYMPTOMS OF SNAKEBITE



VISION
Blurriness

CENTRAL
Dizziness
Fainting
Increased thirst
Headache

RESPIRATORY
Breathing difficulty

SYSTEMIC
Fever
Severe pain

WOUND SITE
Bleeding
Fang marks
Discoloration
Burning sensation
Swelling

HEART AND VESSELS
Rapid pulse
Low blood pressure
Severe shock

OTHER SKIN SITES
Bleeding spots
Numbness
Tingling
Sweating

MUSCULAR
Convulsions
Loss of coordination
Weakness

INTESTINAL
Diarrhea

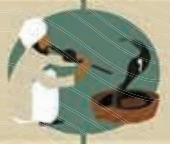
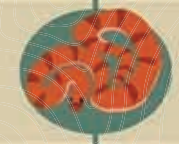
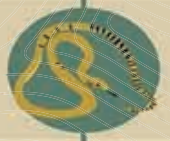
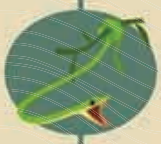
GASTRIC
Nausea
Vomiting

SURVIVAL MASTERY
Source: survival-mastery.com

7 MYTHS ABOUT SNAKES

HUMANE SOCIETY INTERNATIONAL
INDIA

Capturing and displaying snakes causes tremendous suffering. These animals are taken from the wild and abused, all in the name of worship. Their fangs are pulled out, their mouths are stitched shut and they're kept in cruel conditions that often end in disease and an untimely death. Besides being inhumane, capturing snakes is illegal. Read on to learn the truth about these much maligned animals.

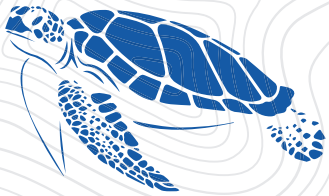
MYTH		FACT
Snakes drink milk.		Snakes cannot digest milk, and forcing them to drink it is cruel.
Snakes dance to a charmer's tune.		Snakes cannot hear sound. They merely follow the movement of the flute.
Cobras carry nagamani in their heads.		Snakes don't carry stones in their heads.
Keeping a red sand boa at home increases your wealth.		Keeping red sand boas in captivity is illegal and can earn you a hefty fine.
Snakes seek revenge when they're hurt or their mates are killed.		Snakes use their energy to survive, not to go after humans.
Rat snakes have venom in their tail.		Rat snakes are non-venomous.
Green vine snakes poke your eyes out.		Green vine snakes have good camouflage, resulting in collisions when people unwittingly walk into them.

WHAT YOU CAN DO

Say **NO** to live snake worship.

Contact your local forest department to report live snake displays.

Encourage cruelty-free celebrations.



TURTLES
OF JAMMU PROVINCE

Turtles are reptiles of the order Chelonia it includes the marine turtles, the fresh water tortoises or terrapins, the fresh water turtles and the land tortoises. Turtles have characteristic bony shell. The jaws lack teeth but in a few species the horny beak that serves in their place has tooth like serrations. The sexes are not easily distinguished but the male generally has a longer tail and a concave plastron. All turtles bury their eggs in soil for incubation. The eggs may be hard or soft-shelled depending on the species. There are approximately 356 species of turtles in the world living on land in all continents except Antarctica. As per TRAFFIC India there are 28 species of Tortoises and Turtles in India and out of which Seven Species of Turtles have been reported by Sahi (1979) in J&K.

The Department of Wildlife Protection J&K, have identified five species of Turtles from the lakes and rivers of Jammu Province and reconfirmed by the WII.



01.

Indian Flapshell Turtle

(Lissemys punctata)

Wildlife (Protection)
Act of India: Sch. I Part II

02.

Indian Softshell Turtle / Ganges Softshell Turtle

(Nilssonia gangeticus)

Wildlife (Protection)
Act of India: Sch. I Part II





03.

Brown Roofed Turtle

(Pangshura smithii)

Wildlife (Protection) Act of India: Sch. I Part II

04.

Black Pond Turtle

(Geoclemys hamiltoniii)





05.

Peacock Softshell Turtle

(Nilssonia hurum)

Wildlife (Protection)
Act of India: Not Listed

06.

Indian Narrow-Headed Softshell Turtle

(Chitra indica)

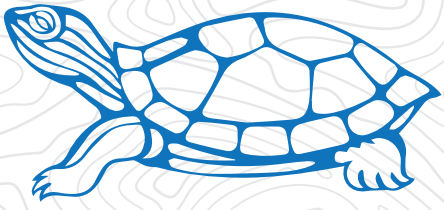




07.

Indian Roofed Turtle

(Pangshura tecta(tectum)



LIZARDS
OF JAMMU PROVINCE



Lizards are generally distinguished from the snakes by the presence of limbs. The shape of the body is indicative of the habitat of the species. Ground dwelling forms and those which live among rocks are flattened dorsoventrally, arboreal forms are compressed laterally and subterranean forms are elongated and cylindrical. Indian lizards except Monitor Lizards rarely exceed 500 mm in total.

Lizards are mainly insectivorous, a few are herbivorous and some are carnivorous. The eggs are usually buried in the soil for incubation. Lizards occupy all terrestrial biotopes in India, from the deserts to evergreen forests and from plains level upto 5,000 mts in the Himalayas.

Sahi (1979) has identified 23 species of lizards from the J&K. Sahi and Duda (1982) described six little known species of lizards of which Asian Snake-eyed Skink was new to India, Fan Throated Lizard, the Punjab Snake-eyed Lacerta, the Indian Fringe-fingered Lizard. Manhas et.al 2018 recorded seven species of Lizards out of which one new distributional record of Himalayan Bent-toed Gecko was reported from the Doda Region.



01.

Yellow Monitor Lizard

(Varanus flavescenss)

Wildlife (Protection)
Act of India: Sch. II Part II

02.

Common Indian Monitor Lizard

(Varanus bengalensis)

Wildlife (Protection)
Act of India: Sch. II Part II





03.

Common Leopard Gecko *(Eublepharis macularius)*

Wildlife (Protection) Act of India: Sch. II Part II

04.

East Indian Leopard Gecko *(Eublepharis hardwickii)*





05.

Himalayan Bent-Toed Gecko

(Cyrtodactylus himalayanus)

Wildlife (Protection) Act of India: Sch. II Part II



06.

Indian Garden Lizard

(Calotes versicolor)

Wildlife (Protection) Act of India: Sch. II Part II



07.

Indian Garden Lizard

(Calotes sp.)

Wildlife (Protection)
Act of India: Sch. II Part II

08.

Agror Agama

(Laudakia agrorensis)

Wildlife (Protection)
Act of India: Sch. II Part II





09.

Kashmir Rock Agama

(Laudakia tuberculata)

Wildlife (Protection) Act of India: Sch. II Part II

10.

Himalayan Agama

(Paralaudakia himalayana)

Wildlife (Protection) Act of India: Sch. II Part II





11.

Himalyan Ground Skink

(Asymblepharus himalayanus)

Wildlife (Protection)
Act of India: Sch. II Part II

12.

Ribbon-Sided Skink

(Eurylepis taeniolatus)

Wildlife (Protection)
Act of India: Sch. II Part II





13.

Common/ Brahminy Skink

(Mabuya carinata)

Wildlife (Protection) Act of India: Sch. II Part II

14.

Lawder's Bent toed Gecko

(Cyrtodactylus lawderanus)





15.

Frontier Bow fingered Gecko

(Cyrtodactylus stoliczkai)

16.

Salt Range Rock Gecko

(Cyrtopodion montiumsalsorum)





17.

Rough Tailed Gecko

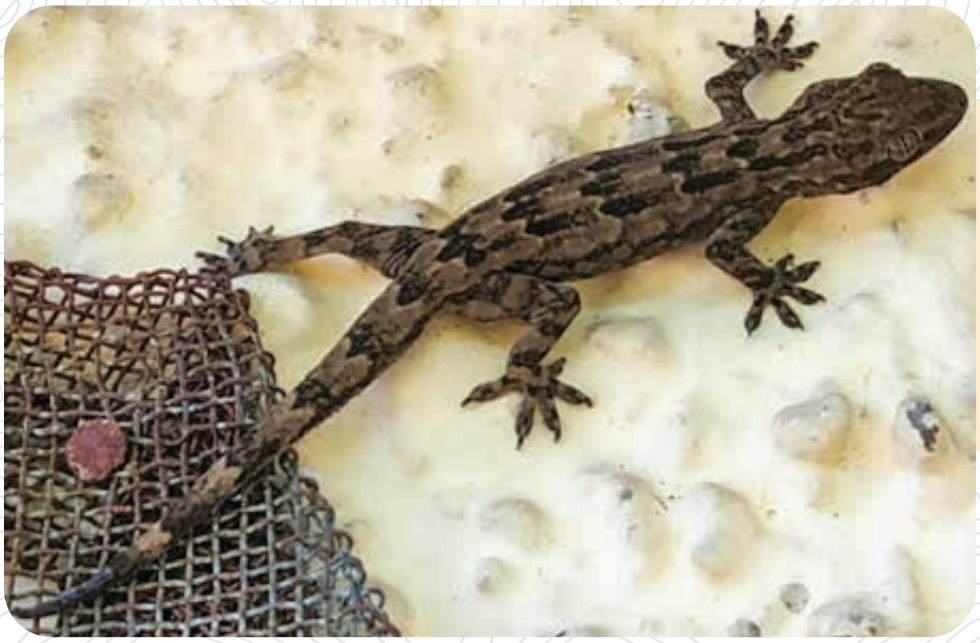
(v)

18.

Brooke's or Spotted House Gecko

(Hemidactylus brooki)





19.

Yellow Belly Gecko or Northern House Gecko

(Hemidactylus flaviviridis)

20.

Pondicherry fan throated lizard

(Sitana ponticeriana)





21.

Theobald's Toad-Headed Agama/Snow Lizard

(Phrynocephalus theobaldi)



22.

Reticulated Toad-Headed Agama

(Phrynocephalus reticulatus)



23.

Striped Grass Mabuya/Skink
(Eutropis dissimilis)

24.

Ladakh Ground Skink
(Asymblepharus ladacensis)



25.

Asian Snake-Eyed Skink

(Ablepharus pannonicus)





26.

Indian Fringe fingered Lizard

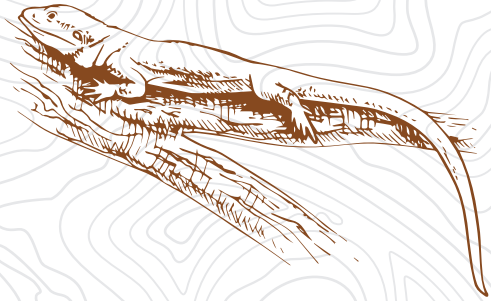
(Acanthodactylus cantoris)



27.

Jerdon's Snake Eye or Punjab Snake eye Lacerta

(Ophisops jerdoni)



TOADS
OF JAMMU PROVINCE



Toads is a common name for certain frogs, especially of the family Bufonidae, that are characterized by dry, leathery skin, short legs, and large bumps covering the parotoid glands.

A distinction between frogs and toads is not made in scientific taxonomy, but is common in popular culture, in which toads are associated with drier, rougher skin and more terrestrial habitats.

Usually the largest of the bumps on the skin of a toad are those that cover the parotoid glands. The bumps are commonly called warts, but they have nothing to do with pathologic warts, being fixed in size, present on healthy specimens and not caused by infection. Toads travel from non-breeding to breeding areas of ponds and lakes. Bogert (1947) suggests that the toads' call is the most important cue in the homing to ponds. Toads, like many amphibians, exhibit breeding site fidelity (philopatry). Individual American toads return to their natal ponds to breed where they are likely to encounter siblings as potential mates. Although inbred examples within a species is possible, siblings rarely mate. Toads recognize and avoid mating with close kin. Advertisement vocalizations given by males appear to serve as cues by which females recognize kin. The Kin recognition thus allows avoidance of inbreeding and consequent inbreeding depression.



01.

Beddome's Toad

(Duttaphrynus beddomii)

Wildlife (Protection) Act of India: Sch. II Part II

02.

Himalayan Toad

(Duttaphrynus himalayanus)

Wildlife (Protection) Act of India: Sch. II Part II





03.

Baltistan/ Ladakh/ Vertebral banded Toad

(Duttaphrynus latastii)

Wildlife (Protection) Act of India: Sch. II Part II

04.

Asian Black Spined/ Black Spectacled/ Asian Common Toad

(Duttaphrynus melanostictus)

Wildlife (Protection) Act of India: Sch. II Part II





05.

Indian Marbled/Indian Valley Toad

(Duttaphrynus stomaticus)

Wildlife (Protection) Act of India: Sch. II Part II

06.

European GreenToad

(Duttaphrynus viridis)

Wildlife (Protection) Act of India: Sch. II Part II



FROGS
OF JAMMU PROVINCE



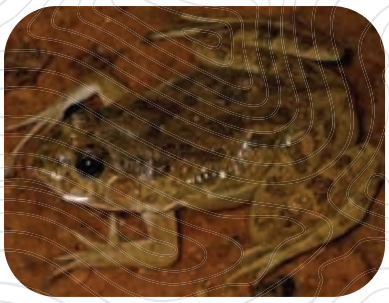
A FROG is any member of a diverse and largely carnivorous group of short-bodied, tailless amphibians. An adult frog has a stout body, protruding eyes, anteriorly-attached tongue, limbs folded underneath, and no tail (except in tailed frogs). Frogs have glandular skin, with secretions ranging from distasteful to toxic. Their skin varies in colour from well-camouflaged dappled brown, grey and green to vivid patterns of bright red or yellow and black to show toxicity and ward off predators. Adult frogs live in fresh water and on dry land; some species are adapted for living underground or in trees.

Frogs typically lay their eggs in water. The eggs hatch into aquatic larvae called tadpoles that have tails and internal gills. They have highly specialized rasping mouth parts suitable for herbivorous, omnivorous or planktivorous diets. The life cycle is completed when they metamorphose into adults. A few species deposit eggs on land or bypass the tadpole stage. Adult frogs generally have a carnivorous diet consisting of small invertebrates, but omnivorous species exist and a few feed on plant matter. Frog skin has a rich microbiome which is important to their health. Frogs are extremely efficient at converting what they eat into body mass. They are an important food source for predators and part of the food web dynamics of many of the world's ecosystems. The skin is semi-permeable, making them susceptible to dehydration, so they either live in moist places or have special adaptations to deal with dry habitats. Frogs produce a wide range of vocalizations, particularly in their breeding season, and exhibit many different kinds of complex behaviors to attract mates, to fend off predators and to generally survive.



Male





Female

01.

Indian Skipper or Skittering Frog

(Euphlyctis cyanophylyctis)

Wildlife (Protection) Act of India: Sch. II Part II





02.

Indus Valley Bullfrog/ Indian Bullfrog/ Asian Bullfrog

(Hoplobatrachus tigerinus)

Wildlife (Protection) Act of India: Sch. II Part II



03.

Boie's Wart Frog/Rice Field Frog/Asian Grass Frog

(Fejervarya limnocharis)

Wildlife (Protection) Act of India: Sch. II Part II

04.

Sikkim Paa Frog/Liebig's Paa Frog/ Spiny-Armed Frog

(Nanorana liebigii)

Wildlife (Protection) Act of India: Sch. II Part II





05.

Himalaya Paa Frog/ Stoliczka's Frog/ Murree Frog

(Nanorana minica)

Wildlife (Protection) Act of India: Sch. II Part II

06.

Baluch Mountain Frog/ Karez Frog/ Murray's Frog

(Chrysopaa sternosignata)

Wildlife (Protection) Act of India: Sch. II Part II





07.

Himalaya paa frog/ Stoliczka's Frog, Murree Frog

(Nanorana vicina)

Wildlife (Protection)
Act of India: Sch. II Part II

08.

Indian Burrowing Frog

(Sphaerotheca breviceps)

Wildlife (Protection)
Act of India: Sch. II Part II





09.

Nyingchi Lazy Toad/ Nyingchi Alpine Toad

(Scutiger nyingchiensis)

Wildlife (Protection) Act of India: Sch. II Part II

10.

Ornate Narrow-Mouthed Frog/Ornate Narrow-Mouthed Toad/ Ornamented Pygmy Frog

(Microhyla ornata)

Wildlife (Protection) Act of India: Sch. II Part II





11.

Marbled Balloon Frog/ Lesser Balloon Frog

(Uperodon systoma)

Wildlife (Protection) Act of India: Sch. II Part II





THE FIRST PICTURE OF THE CROCODILE TOOK IN A POND AT CHANNA MALAGRA







The only incidence of 6 feet long male mugger / marsh crocodile (Crocodylus palustris) was for the first time reported from the village pond at Chann Malagar but latter on was captured from the village Bella of Samba district.



NOTES

MY 5 YEAR OLD SAID. "DADDY..., THOSE TURTLES ARE GIVING A PIGGYBACK RIDE!" SLIGHTLY EMBARRASSED, I DECIDED HE WAS OLD ENOUGH FOR "THE TALK".

SO, I SAT HIM DOWN AND GENTLY SAID. "BUDDY... THOSE ARE TORTOISES. NOT TURTLES."

IF YOU'RE NOT

TALKING TO YOUR KIDS ABOUT HERPETOLOGY, WHO IS?

EDUCATE. INSPIRE. CONSERVE.

Source
Snakebuddies.net

