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Contents

First photographic record of Rusty-spotted Cat from Dang Forest, Gujarat

Rusty-spotted Cat *Prionailurus rubiginosus* is one of the most elusive wild cats of the Indian Subcontinent (Pocock 1939; Appel 2016). This world's smallest wild cat is nocturnal and occurs in moist and dry deciduous forests as well as scrubs and grasslands. It prefers dense vegetation and rocky areas. Since 2016, the global wild population is listed as 'Near Threatened' on the IUCN Red List as it is fragmented and affected by loss and destruction of its prime habitat, deciduous forests.(Mukherjee et al. 2016)

Rusty-spotted Cat from Dang Forest, Gujarat.

Gujarat is one of the few states from where this elusive cat has been reported (Vyas & Upadhyay 2014; Rabari et al. 2022; Vyas et al. 2018; Chaudhary et al. 2022). Dang Forest in southeastern Gujarat is one of the best habitats for these magnificent little cats. It was last reported from the Dang Forest on 25 October 2000 (Vyas & Upadhyay 2014) from forested corridor between Vansda National Park and Purna Wildlife Sanctuary, but no photographic records can be found till date.

After 23 years, we saw and photographed a Rusty-spotted Cat again on 11 February 2023 (0849h) near Dhuldha Village of Purna Wildlife Sanctuary (20.9648N, 73.6607E). Elevation was 166 m. The habitat was mainly agriculture and patches of deciduous forest. The cat was seen near a small stream where it came to drink water and was chased away soon by a domestic cat.

Recent published sightings of Rusty-spotted Cat from Gujarat are as follows:

1. A Rusty-spotted Cat was captured in a camera trap from Bedapani area located in Balaram-Ambaji Wildlife Sanctuary (24.360N,72.792E) on 19 January 2020 at 0716h (Rabari et al. 2022)

2. The Rusty-spotted Cat was captured at 13 sites out of 50 camera trap sites from March 2017 to June 2017 and November 2017 to January 2018 across 200 square kilometer area of Gir National Park (Chaudhary et al. 2022).

From 1999–2013 there have been 11 reported sightings of Rusty-spotted Cat from Dangs (around Vansda National Park), Ratanmahal, Jambughoda, and Shoolpaneshwar Wildlife Sanctuaries (Vyas & Upadhyay 2014).

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Loss of two Ganges River Dolphins in Kulsi River, Assam, highlights the need for conservation action

The Ganges River Dolphin *Platanista gangetica*, a freshwater dolphin found in the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu River systems in India, Bangladesh, and Nepal, is currently at high risk of extinction (Khan & Bhardwaj 2022). It is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972, Appendix I of CITES and categorized as Endangered in IUCN Red List. A population survey by Wildlife Institute of India in Brahmaputra River system in February 2018, estimated 877±19 numbers of dolphins (Braulik et al. 2021). The same survey puts the dolphin population in Kulsi River at 37 individuals (Braulik et al. 2021) and it varied between 29–32 over the years (Wakid 2009; Qureshi et al. 2020a).

Recently, the unnatural death of two Ganges River dolphins in early February 2023 was recorded in Kulsi River, Assam, which could severely impact the small dolphin population in the river. The deaths were

Ganges River Dolphin in Kulsi River.

Carcass of dolphin recovered at Bherbheri on 02Feb2023.

Carcass of dolphin recovered at Dakuapara on 05Feb2023.

Dry river towards Brahmaputra, just after meeting of Kukurmara and Kulsi rivers.

Fishing activity near Ganges River Dolphin view point.

Kukurmara Kulsi before meeting at Brahmaputra.

considered unnatural as the location where the carcasses were found was not their normal habitat, moreover, the water level was also low that indicated the unfavorable condition for its survival and thereby leading to unnatural death. The dolphin carcasses were recovered from Kulsi River at Bherbheri (25.9957N, 91.3784E) and Dakuapara (25.9955N, 91.3799E), Kamrup, Assam. As observed by the first author, the length of the first individual that died on 02 February 2023 was approximately 5 ft with 80 kg body weight, whereas, the second individual that died on 5 February 2023 was approximately 3.5 ft with 42 kg body weight.

The main threats to its survival come from water development projects like sluice gate that is constructed at Kulsi Batha confluence, by-catch of the species, illegal hunting, and contamination of rivers with chemicals (Kelkar et al. 2022). Many of the minor tributaries of Kulsi River (Batha, Jagalia) have already lost their smaller sub-populations of dolphins, and leading in a historical and continuing range decline in upstream areas (Braulik et al. 2021). In 2019, a wall was built at the junction of Kulsi-

Batha rivers for ITC Ltd. soap and biscuit factory. However, illegal sand mining is taking place in the Kulsi River and during the dry season, the river water is solely utilized for irrigation. This requires the use of water pumps which cause significant noise pollution in the surrounding environment (Qureshi et al. 2020b). For fishing activities in the river, Kulsi fisherman use mosquito nets where the entire width of the river is blocked off with bamboo poles in order to guide the fish towards the nets and prevent the dolphins from moving freely (Qureshi et al. 2021).

The wall of ITC must be removed at the junction of Kulsi-Batha and measures must be put in place to oversee and regulate sand mining, particularly with the use of mechanized pumps (Qureshi et al. 2021). It is necessary to establish a community network that focuses on protecting dolphins. This network should consist of citizens who will undergo training and will be connected with local forest departments. Their role will be to inform the authorities about dolphin sightings, changes in their natural environment, and any potential dangers that may arise over time (Khan & Bhardwaj 2022). On a positive note, the forest department has reportedly halted the sand mining activity in the area after the recent death incident of these two dolphins.

A satellite imagery of the river with the two locations of carcass recovery.

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First record of piebaldism in Wild Boar from India

The Wild Boar *Sus scrofa* Linnaeus, 1758 (Artiodactyla: Suidae) is widely distributed throughout the country. It has a large mane which runs in a crest along its back from its head to lower body. Colour is generally black, more or less mixed with rusty brown or whitish. It inhabits the grassy or scanty bushy areas in forest or nearby the villages or towns.

Herd of Wild Boars. © Rishikesh Lande.

In mammals, a wide variety of colours and forms are found as a result of the presence of the colour pigment melanin, which provides colour to the skin, hair and eyes. There are two forms of melanin: eumelanin and phaeomelanin (Lubnow 1963). Both these pigments together can give a wide range of grayish-brown colours (Lubnow 1963; van Grouw 2013).

A Wild Boar with white colour band. © Rishikesh Lande.

A Wild Boar *Sus scrofa* with colour aberration was seen in a grassland some 15 km north (19.1884N, 74.6957E) of the Ahmednagar City, Maharashtra, which is a potential site for raptors and other mammals (including Leopards). It was on 30 January 2023 evening (at 0618 h), while observing and photographing birds from the grassland, that the second author photographed a herd of 20+ wild boars roaming in the grassland, and was wondered to see one of the boars with narrow white colour band running laterally downwards from the nape to the toes of the forelimb. A few boars were scavenging on carcass of a cow in open ground. He took many photographs of the herd and the individual with colour aberration. Initially, we thought this could be a feral pig mixed with the herd of wild boar, but after scanning

Wild Boars feeding on carcass of a cow. ©Rishikesh Lande.

the photographs keenly and confirming the same from the experts, we concluded that this is a case of pigmentation disorder in the Wild Boar.

Pigmentation disorders or colour aberrations have been observed in almost every vertebrate species on earth. Earlier, van Grouw (2013) introduced a uniform system of naming colour aberrations in birds. He described and named six most common heritable colour aberrations in birds by their pigment reductions (gene actions).

Later, Mahabal et al. (2016) also provided the similar identification key for naming colour aberrations in Indian birds. Both the above mentioned keys focus on the birds. Mahabal et al. (2019) provided the colour aberration identification key for mammals. According to this key, the observed Wild Boar is an excellent example of piebaldism, where the absence of colour pigment is clearly seen at a localized area (from nape to the fore limb toes) and also have normal coloured eyes. This case is similar to leucism but differs in that the melanocyte development is only locally disrupted.
In India, 55 mammalian species belonging to eight orders and 19 families show colour aberrations, from which only two cases (Sinha 1946; Neginhal 2005) are of albinism in Wild Boars *Sus scrofa* from Rajasthan and Karnataka respectively (Mahabal et al. 2019). Recently, Samson et al. (2021) also reported an albino Wild Boar *Sus scrofa* from Tamil Nadu. Considering all these, this could be the first record of piebaldism in Wild Boar from India.

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#233
21 May 2023

Recent rare sightings of four different snakes in Gauhati University Campus, Assam, India

There are 304 species of snakes belonging to 34 families so far recorded in India (Aengals et al. 2018). The prime objective of this note was to record a few rare sightings of snakes encountered during their rescue operation from human habitat since June 2018 in the Gauhati University campus (26.1541N, 91.6630E), Guwahati, Assam and release into nearby Jalukbari Reserve Forest. Gauhati University campus is dotted with rivulets, grasslands, plains, hills, narrow valleys and the campus's southern boundary is primarily made up of hills rising to a height of 168 m. Its northern boundary is primarily made up of wetlands while in east-west direction, the national highway 37 passes (Bhattacharya 2022). Till date four rare sightings have

Rescue of *Trimeresurus salazar* by Tikendrajit Gogoi. © Manab Jyoti Kalita.

Rescued *Trimeresurus salazar*. © Manab Jyoti Kalita.

Table: Rare sightings of snakes from Gauhati University campus.

	Common name	Scientific name	Family	Category
1	Salazar's Pit Viper	*Trimeresurus salazar*	Viperidae	Venomous
2	Red-necked Keelback	*Rhabdophis subminiatus*	Natricidae	Venomous
3	Ornate Flying Snake	*Chrysopelea ornata*	Colubridae	Mild venomous
4	Light-barred Kukri Snake	*Oligodon albocinctus*	Colubridae	Non venomous

The sighted Red-necked Keelback. © Tikendrajit Gogoi.

been made in the campus, namely, *Trimeresurus salazar*, *Rhabdophis subminiatus*, *Chrysopelea ornata*, *Oligodon albocinctus*.

Mirza et al. 2020 described about the Salazar's Pit Viper *Trimeresurus salazar* from Pakke Tiger Reserve, Arunachal Pradesh. The *Trimeresurus salazar* is the only species in northeastern India with an orange/reddish postocular stripe in males head from behind the eyes to the nape (as opposed to others without stripes, white stripe or red and white stripes) and body coloration of yellowish-green (as opposed in to deep green in other species) (Rathee et al. 2021). This long and slender snake with the above identifying characters was sighted in the backyard of AT-6 Boy's hostel, Gauhati University during monsoon season on 02 July 2022.

The Red-necked Keelback *Rhabdophis subminiatus* has reddish neck, olive green in colour with faint yellow-black markings and has eight number of supralabial scales along with three-five scales near the eye (Ranade 2022). It is most commonly sighted near or on the banks of water bodies like streams, ponds, rivers along with wet grasslands, marshy areas and even in agricultural areas like rice fields (https://indiabiodiversity.org/). These identifying characters matched with sighted Keelback at the University campus. It was sighted inside the Botany Department Laboratory, Gauhati University during retreating monsoon on the 03 October 2021.

The Ornate Flying Snake *Chrysopelea ornata* is light green in colour, long-slender snake with black crossbars and reddish spots that are present alternately. It has a wide distribution in India with sighting records from entire northeast, certain regions of Gujarat and central India as well as Western Ghats (https://indiabiodiversity.org/). Furthermore, although Ahmed et al. 2009, recorded its presence in northeast India, reports on its sighting are almost scanty in the area. As described by Dutta (2015) its head is flattened, snout depressed, has spots on side

and with light green belly. The aforementioned characters matched the one we have sighted. It was sighted on the terrace of RCC-5 Boys' hostel, Gauhati University during monsoon season on 19 August 2020.

The sighted Ornate Flying Snake. © Tikendrajit Gogoi.

The Light-barred Kukri *Oligodon albocinctus* snake has entire cloacal plate, complete head scalation and dorsal part with blotches or pale crossbars (David et al. 2012). *Oligodon* is one of the largest genera of snakes in Asia having near about 75 recognized species (Green et al. 2010; David & Vogel 2012). It is well distributed in Asia including India, Bhutan, Bangladesh, Myanmar, China, and Nepal. In India, it has been recorded from Assam, Sikkim, and north Bengal (https://indiabiodiversity.org/). These external features match with the one we encountered during pre-monsoon season near the wetland of Gauhati University Model High School on 27 May 2018.

The sighted Light-barred Kukri. © Tikendrajit Gogoi.

Since lower trophic level species are necessary for the survival of higher trophic level organisms, the study area has the potential to support a variety of herpetofauna. Furthermore, such unusual encounters indicate the possible habitat of various species of rare as well as more common snakes on the campus.

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Reptile Rap
SARN
S. Asian Reptile Network
#234
21 May 2023

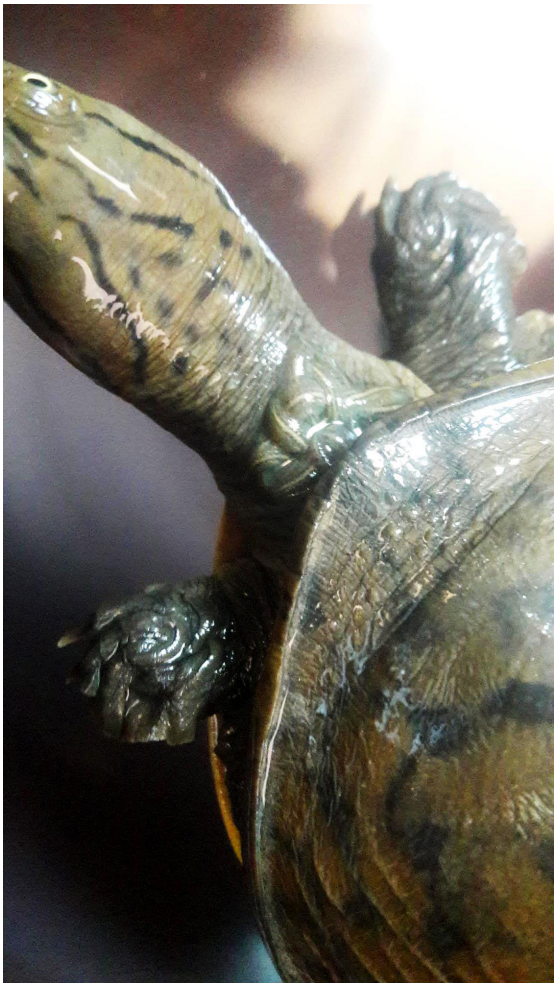
Record of association of an Indian Flapshell Turtle with freshwater jawless leeches at Pune, Maharashtra, India

The Indian Flapshell Turtle *Lissemys punctata* (Bonnaterre, 1789) is a soft-shell turtle belonging to the family Trionychidae of the order Testudines. It is a freshwater turtle found in ponds, rivers and lakes all across India and also distributed to other parts of the Indian subcontinent (Aengals et al. 2018). It is an omnivore, feeds mainly on aquatic vegetation, plant leaves, fruits, and small aquatic animals (Bhupathy et al. 2014). The Indian Flapshell Turtle is protected under Schedule I Part II of Indian Wildlife (Protection) Act, 1972 as amended up to 2023.

Indian Flapshell Turtle *Lissemys punctata*. © Ganesh Phalke.

On 26 November 2020 at 1605 h, Mr. Ganesh Phalke, snake catcher located a turtle on the middle of Thugaon-Kamshet road (18.7088N, 73.5606E) abutting a runnel near Baur village, Pune, Maharashtra. The runnel is a tributary of Pawana River which flows from Mawal Taluka to Pimpri-Chinchwad City. En route to his residence, Mr. Phalke promptly removed the turtle from the road thereby saving it from possible road kill. The author was informed about the same and at the same time the photographic evidences were collected. We observed that its Carapace length was around c. 11 cm in length and femoral flaps on plastron were intact. Limbs

Freshwater jawless leeches of the family Glossiphoniidae removed from Indian Flapshell Turtle. © Ganesh Phalke.



The heavily parasitized Indian Flapshell Turtle with freshwater jawless leeches on the neck. © Ganesh Phalke.

and forehead not scaled while three clawed fore- and hind-limbs were webbed. Lack of scutes on the shell and carapace was covered with skin. The colour was olive brown above with large black spots and greenish head with several black spots and lines.

From the key characters like femoral flaps, nasal septal ridges and shell closure mechanism, we confirm it as Indian Flapshell Turtle *Lissemys punctata*. Furthermore, its carapace was depressed and oval in shape indicating a possible juvenile (Hanfee 1999; Bhupathy & Kurt 2010).

After close examination it was noticed that the leeches on the body were ovate and flattened, and not cylindrical. Anterior sucker was ventral and fused with the body while lateral branchiae and pulsating vesicles were absent. Hence, Leeches were identified from their diagnostic characters as freshwater jawless leeches of the family Glossiphoniidae (Vaillant, 1890) (Harding & Moore 1927; Chandra 1982).

Glossiphoniidae is a family within the Rhynchobdellida order of true leeches, which are equipped with a proboscis. These flattened leeches are characterized by an indistinct anterior sucker, as noted by Chandra (1991). Most leech species are ectoparasites that feed on the blood of hosts, often specializing in specific groups of vertebrates. The Piscicolidae family, for instance, primarily feeds on fish blood, although some also consume invertebrates such as oligochaetes and freshwater snails. Conversely, Ozobranchidae leeches prefer aquatic reptiles, amphibians, crocodilians, and aquatic turtles but are known to opportunistically feed on humans as well (Chandra 1991). The perusal of literature revealed that there is no specific record of association of Indian Flapshell Turtle with jawless freshwater leeches. Here, we report first ever record of association of an Indian Flapshell Turtle *Lissemys punctata* (Bonnaterre, 1789) with freshwater jawless leeches of the family Glossiphoniidae (Vaillant, 1890) at Pune, Maharashtra, India. What effect leeches have on turtles is unknown to best of our understanding. Whether the relation is parasitic or symbiotic remains to be examined, in this regard, further study is needed on effects of leeches on turtle.

Subsequently, we also noticed that the turtle was heavily parasitized with leeches on its neck. Using a pair of tweezers all the leeches were carefully removed. The leeches count was 25. Later, the turtle was released in nearby Pawana River. Subsequently, the Forest Department of Maharashtra, Pune Division was informed about the rescue and release of the turtle.

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#235
21 May 2023

Sighting of Gray's Kukri Snake from Kohima District, Nagaland, India

Gray's Kukri Snake *Oligodon dorsalis* is a non-venomous colubrid snake found in India (Assam, Nagaland, and Mizoram), Bhutan, Bangladesh, Myanmar, and Thailand (Uetz et al. 2023). Till date there are four reports of this species from Nagaland (Smith 1943; Mathew 1992; Ao et al. 2004; Dasgupta & Raha 2006). Dasgupta & Raha 2006 included this species based on an old collection from Chumukedima (then Samaguting) by Captain Butler in 1872. This species is a terrestrial species which is known to occur in mixed evergreen forests, secondary forests (Khan et al. 2021) and subtropical broad-leaved forests (Das & Palden 2000).

Individual of *Oligodon dorsalis* encountered as road kill. © Thejavitso Chase.

At 0811 h on 4 August 2021 a dead individual of *Oligodon dorsalis* was observed at Phezhu, Jotsoma, Kohima District (25.6616N, 94.0753E, 1,660 m). The road kill was observed on a dirt road near human settlement.

This report is preceded by the report of Ao et al. (2004) in Kohima District, without specificity of the locality. Owing to the lack of research on herpetofauna in Nagaland, there is no information regarding the population trends of this species. Moreover, the report of a species found in human habitat after 17 years suggests the lack of knowledge of reptiles in Kohima district. Therefore, comprehensive studies on reptiles along with awareness programs for conservation is required.

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Annotated checklist of the edible insects of Lepcha tribe of Sikkim, India

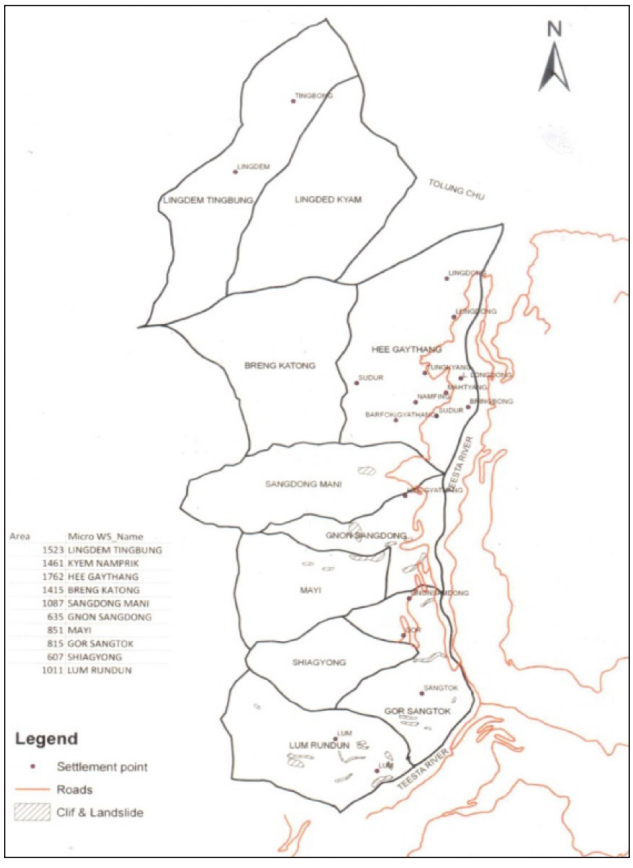
Sikkim has the record of existence of several insects but its economic and biological roles are thinly documented. Among those insects, there are some reports of existence of pests in agricultural land of Sikkim such as *Lissachatina fulica* and *Spodoptera frugiperda* (Pradhan et al. 2022b; Lama & Lepcha 2022) and some insects as palatable food of Lepcha community, e.g., *Megasoma actaeon* and *Gryllotalpa gryllotalpa*. Thus, the study area of Dzongu was selected having the altitudinal gradients of 700–6,000 m and the geographical area of 78 km^2.

Reconnaissance of data from several qualitative sources was performed and compared the information with the available data (Cowan & Cowan 1929; Hara 1966; Champion & Seth 1968; Grierson & Long 1983). In addition to this, several field visits and interactions with the community were conducted for qualitative and quantitative analysis in Dzongu, Sikkim.

As the insects have the roles in the ecosystem (Pradhan 2019, 2022a), the enumeration of edible insects of Dzongu, Sikkim was conducted from the hillock of Dzongu (Sikkim). The 10 edible insects are compiled along with their habitats, host plants and remarks.

Eventually, the outcome of this study is compiled and enlisted. The listing of 10 edible insects found in farmland and water sources of Dzongu, Sikkim Himalaya, is presented.

Most striking point is that these enlisted edible insects are basically the pests of the farm crops (Mandal et al. 2007). Thus, such consumption of edible insects is beneficial for farming and might be a support in the agricultural crop production.



Map of Dzongu (Source: HARC, F&ED)

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Table: Edible insects found in Dzongu, Sikkim.

	Scientific name	Local name	Identified habitat	Host plant	Remarks
1	*Coridius chinensis* (Dallas, 1851)	Aungkyoung Noap (L); Khola ko Pudina (P)	River Bank of Rongyung Aung	-	Collected during November–February.
2	*Glenea spilota* (Thomson, 1860)	Tatetbu (L)	Lingkoo, North Sikkim	*Erythrina arborescens* Roxb.	Collected during April–June.
3	*Cotinis nitida* (Linnaeus, 1764)	Dhantaflak (L)	Noam Kung, Lingkoo, Namprick, North Sikkim	*Engelhardtia spicata* Lehen ex Blume	Collected during April–June.
4	*Popillia japonica* (Newman, 1841)	Pongthambeek (L)	KachiLho, Lingko, North Sikkim	*Eragrostis uniloides* (Retz.) Nees ex Steud. Locally known as Bonso (P)	Collected during April–July.
5	*Brachinus sclopeta* (Fabricius, 1792)	Sangtibu (L); Langkay Kera (P)	Lankay, Tingvong GPU, North Sikkim	*Colocasia* species	Collected during April–August.
6	*Odoiporus longicollis* (Oliver, 1807)	Kundungthambeek (L); Kayra Kera (P)	Lingkoo, North Sikkim	*Musa* species	Collected during February–August.
7	*Oxyahyla intricate* (Stal, 1861)	AreeTuknyum (L); Dhan BhariPatyangra (P)	Sunumdang, North Sikkim	Farmland of *Oryza sativa* L. and in other species of Oryza	Collected during June–October.
8	*Scudderia furcata* (Wattenwyl, 1878)	NungdokNyum (P)	Tingvong GPU, North Sikkim	Farmlands of *Amomum subulatum* Roxb., *Oryza sativa* L.	Collected during October–November.
9	*Megasoma actaeon* (Linnaeus, 1758)	Tumbolhohop (L)	Tingvong, GPU	*Zea mays* L.	Found in the cow dung's heap.
10	*Gryllotalpa gryllotalpa* (Linnaeus, 1758)	Ting Tyerbu (L)	Tingvong GPU	*Oryza sativa* L.	Found in marshy place of rice field.
(Abbreviations: L: Lepcha, P: Pharbatey)					

This remarkable measure of pest control mechanism was noted in the hillock of Dzongu that is ecofriendly and organic in nature. As there was no earlier record on edible insects of Dzongu, the study warrants further discourses on population density, biology, and economy of insects in Sikkim Himalaya.

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Life stages of Giant Uraniid Swallowtail moth on *Endospermum chinense* at Kamrup District, Assam

Lyssa zampa (Butler, 1869) is a common moth species of the family Uraniidae, also known as the Giant Uraniid Swallowtail. It has the distribution from the Himalaya to Borneo and the Malay Peninsula. Earlier known from southern and southeastern Asia, the moth has recently been recorded from various countries such as Taiwan (Heppner & Wang 1996) and Korea (Jeong et al. 2016).

The larval feeding pattern on leaves of *Endospermum chinense*. © Sachin Ranade.

Being a large moth (wingspan of 10–16 cm), its attraction to urban lights and sometimes mass emergence of adults, the moth attracts the attention of observers (Jain & Tea 2020). It is most abundant from June to November depending on the location (Holloway 1998, 2020). I had seen this species in Buxa Tiger Reserve, West Bengal and in Rani Reserve Forest, Kamrup District, Assam. On 20 February 2018, at the Rani Reserve Forest in Kamrup

Early larva of *Lyssa zampa*. © Sachin Ranade.

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Empty chrysalis of the moth. © Sachin Ranade.

Adult moth *Lyssa zampa*. © Sachin Ranade.

District of Assam, a few moth larvae were seen on a six feet tall tree sapling. There were a couple of late instars and four early instar larvae. The younger instars feed by scraping the leaf lamina while older instars feed on the whole lamina creating uneven shaped holes. The larvae were observed in the wild and photographs were taken. One of the late instar larvae climbed down on 22 February 2018 and was observed to have woven a silk web, binding the dried leaves at the base of the sapling. Its dried excreta were also attached to it. It pupated on 24 February and an adult emerged on 19 March 2018 (23 days). The tree sapling was identified as *Endospermum chinense* Benth. (Family Euphorbiaceae). The leaf has characteristic round glands at the junction of the leaf stalk and leaf lamina. It is a well-known tall tree species and its native range is from Sikkim to south China and Indo-China (Balkrishnan & Chakraborty 2007; POWO 2019).

The larvae of genus *Lyssa* feed on Endospermum and other members of the rubber tree family (Euphorbiaceae). Five species and subspecies of Genus *Lyssa* are described to be associated with seven species of *Endospermum* (Semper 1896–1902; Altena 1953; Lees & Smith 1991).

These observations suggest that it is the first confirmed record of *Endospermum chinense* from Assam, India, adding to the list of known host plants of this species. It

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also adds first-hand observations on the adult moth's presence from March to November in Assam, India.

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Predation of Kollimalai Bush Frog by a carabid *Epomis* larva

Predation on Kollimalai Bush Frog *Raorchestes kollimalai* by a carabid *Epomis* larva in Chengadu Village, Yercaud Hills. © V. Muthukrishnan.

Several arthropod taxa prey on amphibians (Toledo 2007; Bernard & Samoląg 2014). *Epomis* larvae of carabids are known to feed exclusively on frogs (Wizen & Gasith 2011) using curved hook-like mandibles for grasping onto the frog's skin (Brandmayr et al. 2010). Published observations of *Epomis* larva attacking amphibians are available from India (Barve & Chaboo 2011; Wizen et al. 2017; Kulkarni et al. 2020; Pardeshi et al. 2020) and from other parts of the world: Japan (Crossland et al. 2016) and Middle East (Wizen & Gasith 2011).

Kollimalai Bush Frog *Raorchestes kollimalai* is the sister taxon of *Raorchestes charius*, from which it differs from in call, morphology, and

molecular markers (Gowande et al. 2020). At 0940 h on 12 July 2022, at Chengadu Village, Yerchaud Hills (11.78N, 78.22E, 1,348 m), a bush frog was sighted with an *Epomis* larva clung on its throat. The frog was identified as Kollimalai Bush Frog *Raorchestes kollimalai* following Gowande et al. (2020) and Amphibians Species of the World 6.1, an online reference. The bush frog was observed for another 90 minutes and we found nothing unusual in its behaviour due to this larva. Then the bush frog disappeared under the bush and was not at all sighted again on the same day. The next day, at around 0800 h it was found dead just 200 m away from where it disappeared, with the larva still on its throat.

The bush frog could have encountered the *Epomis* larva displaying its characteristic luring behaviour on the ground. *Epomis* larvae feed exclusively on amphibians in an ectoparasitic manner, and the interaction is usually fatal to the amphibians (Wizen & Gasith 2011).

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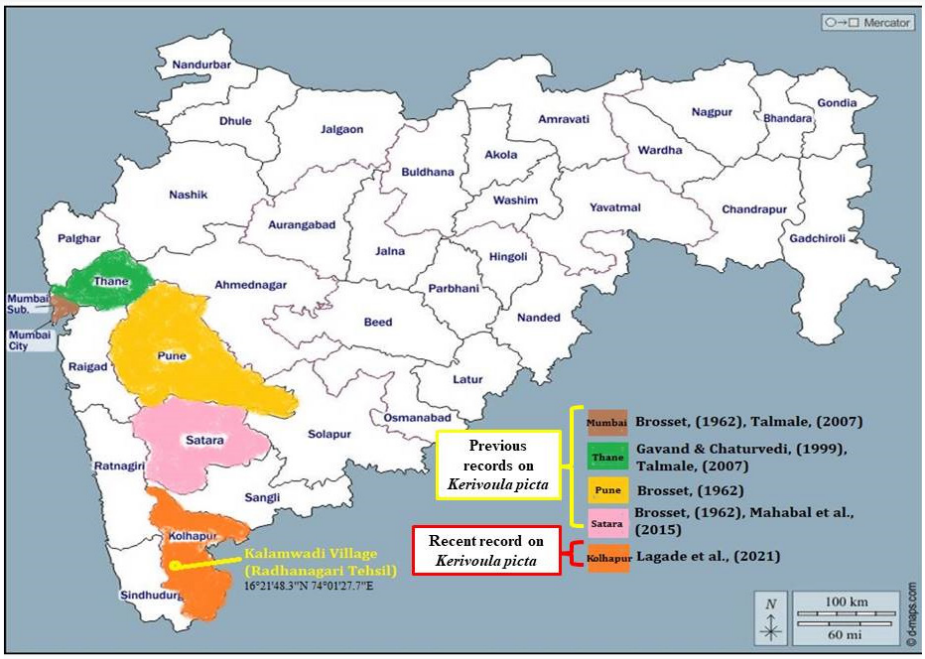
A new record on occurrences of Painted Bat from Kolhapur District, Maharashtra, India.

Western Ghats is rich in biological diversity and indeed of high endemism hence it is considered as one of the hot spots of the World's 34 biodiversity hot spots. Due to its ecological diversity and wide range of forest habitats, it accommodates a high degree of fauna with more endemism (Das et al. 2006). Generally, bats are nocturnal organism that lives in colonies, usually found in dark regions and mainly feed on insects, and fruits (Bates & Harrison 1997).

There was a call from two students Mr. Suresh Patil and Mr. Rushikesh Sutar on 14 September 2021 around 2135 h regarding an unknown bat noted in a residential area. They said that, such a bat we had never seen so far and it was found the first time in this locality (Kalamwadi village). On next day, they brought the bat to the laboratory, we have taken some photographs and morphometric measurements of a body length of 4.5 cm, a wing span of about 16.5cm, total body weight 5.6 g of that bat. The rescued bat was a female individual. After morphometric analysis and photography, we released that bat into their natural habitats.

Painted Bat *Kerivoula picta.*



Map showing the previous records of *Kerivoula picta* from some district of Maharashtra and recent record of *Kerivoula picta* from Kolhapur district.

Subsequently, reviewing the literature and observing the colour patterns with some morphological characters, it comes to know that, the colorful bat was Painted Bat *Kerivoula picta* (Pallas, 1767) belongs to the family Vespertilionidae and order Microchiroptera. Kinds of literature and recent documentation depict that, the Painted Bat was first time recorded from this locality and their presence and distribution were also new to the Kolhapur district. Till date, the occurrence and records of Painted Bat were recorded from some regions of Maharashtra like Mumbai, Thane, Pune and Satara (Mahabal et al. 2015). Whereas in this note, we have reported first time its occurrence and distribution from Radhangari Tehsil, Kolhapur District.

The Painted Bat body is bright orange in colour with black colour wing or patagium. Roosting habitats are agricultural landscapes like paddy and sugarcane fields furthermore it may also siting under dried leaves of bananas, tall grass and dry grass etc. According to IUCN Red List it comes under the 'Least Concern' category.

Among bat species, the Indian Painted Bat species belong to the family Vespertilionidae and the order Microchiroptera is merely studied by authors moreover, this species is not found in large groups instead of that they occur in 2–3 individuals.

The Indian Painted Bat is widely distributed in some Indian Subcontinent regions like India, Sri Lanka, Bangladesh, Bhutan, Myanmar, and Indonesia (Moratelli & Burgin 2019; Edirisinghe et al. 2022). In India, Painted Bat is particularly found in western and southern parts such Gujarat (Devkar et al. 2013), Maharashtra, Goa, Rajasthan, Karnataka, Kerala, and Tamil Nadu (Bates & Harrison 1997; Alfred et al. 2006; Korad 2014; Talmale & Saikia 2018). Mahabal et al. (2015) has reported the occurrence and distribution of Painted Bat in 10 different regions of Maharashtra State such as Mumbai and its sub-urban areas, Thane, Pune, and Satara.

The Kalamwadi Village (16.3634N, 74.0077E) is located in Sahyadri hills and surrounded by the agricultural landscape, particularly paddy and sugar cane fields. In addition, plenty of banana plantations are found in around the house of Mr. Suresh Patil which may attract

the Painted Bat. This note provides new valuable documentation on Painted Bat from the Kolhapur district which concludes that the Painted Bat is widely distributed in the northern Western Ghats of Sahyadri ranges.

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