

# ZOO'S PRINT

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#244  
21 February 2024

## A report on a road kill of Burmese Python from Guwahati, Assam

The Burmese Python *Python bivittatus* Khul, 1820 is considered one of the largest snake species in the world, and it can grow up to a length of 6 m (20 ft.) (Clark 2012).

*P. bivittatus* is a squamate reptile of the Pythonidae family, the top of the body is dark brownish or yellowish-grey, with a series of 30–40 large irregular squarish, black-edged, dark chocolate-grey blotches on the top and sides of the body; it has dark and dark grey dorsal and lateral spots; it has a sub-ocular stripe; and the belly is greyish with dark spots on the outer scale rows. The body is thick and cylindrical; the head is lance-shaped and distinct from the neck; sensory pits can be found in the rostrals as well as on some supralabials and infralabials.



The road killed Burmese Python in Guwahati, Assam. © Nikshit Barman.



The tail is short and prehensile; and there are cloacal spurs (Das 2012).

In India, the Burmese Python is protected under the Indian Wildlife (Protection) Act, 1972 and is listed under schedule I which provides the species the highest level of protection. It is listed as 'Vulnerable' (VU) on the IUCN Red List and is included in CITES Appendix II (CITES 2019). The distribution of *P. bivittatus* in southern and southeastern Asia encompasses eastern parts of India, Nepal, Bhutan, Bangladesh, Myanmar, Thailand, Cambodia, Vietnam, northern Malaysia, and southern China (Barker & Barker 2010). In the native range, it dwells in the tropical lowlands, grassland forests, and within areas modified for human use (Cota 2010). Little is known about its status and distribution in India, largely because the Burmese Python until recently was considered a subspecies of the Indian Rock Python *Python molurus*, with which it is frequently confused.

Here we are reporting a road kill record of a Burmese Python from Guwahati, Assam. On 16 July 2023 at 0610h, one of us (NB) encountered a vehicle killed Python on the NH 17 near Lankeshwar (26.1476 N & 91.6470 E, 77 m) which is close to the Jalukbari Reserve Forest. Upon inspection, we found that the Python (approx. 3.3 m) was killed while trying to cross the highway from a nearby swamp area to a hill, located on the other side of the road, which connects to the Deepor Beel Wildlife Sanctuary.

Roads serve as one of the most crucial components of human life since civilization

and urbanization began, at the same time modify and degrade the natural environment. Reduction of natural habitats is considered a global threat to biodiversity conservation (Geneletti 2003). Roadways can pose substantial threats to the movement of local wildlife, ranging from habitat alteration and modification to disruption of animal distribution and movement, when they pass through protected areas. This can affect breeding density, heterozygosity and survival due to mortality from vehicular collisions.

The Reserve Forest nearby where the Python was found dead also harbours other wildlife such as Common Leopard *Panthera pardus*, Golden Jackal *Canis aureus*, Small Indian Mongoose *Herpestes auropunctatus*, Hoary-bellied Squirrel *Callosciurus pygerythrus* and herpetofauna such as Monocled Cobra *Naja kaouthia*, Green Pit Viper *Trimeresurus salazar* etc. Most of this wildlife is often encountered crossing the highway and nearby roads. This record could be documented because of the large size of python. Many other smaller organisms including amphibians, birds and even reptiles and mammals are frequently run over by vehicles but remain unnoticed. The rapidly increasing traffic pressure in an ever expanding (Mahananda & Jelil 2017) and developing Guwahati City worsens the case of such incidents. Wildlife populations are adversely affected by the process of urbanization and poor imposition of traffic rules further worsen the impacts. Such incidents of road kills of animals clearly present the harsh reality of the threats we humans are imposing on the wildlife through developmental activity.



As per the National Highway Authority of India, the country has the second largest road system in the world, covering approximately 5.89 million km of road stretch, which in length is after the USA (Sur et al. 2023). Considering this vast network of roads in concoction with the incessant anthropogenic factors like habitat alteration, alien species invasions, and climate change, the impact of roads on wildlife cannot be overlooked (Erritzoe et al. 2003). It is therefore our responsibility to understand the interaction of wildlife with linear intrusion such as roadways and provide them with safe passage so that a peaceful coexistence prevails and such mortality of wildlife is reduced.

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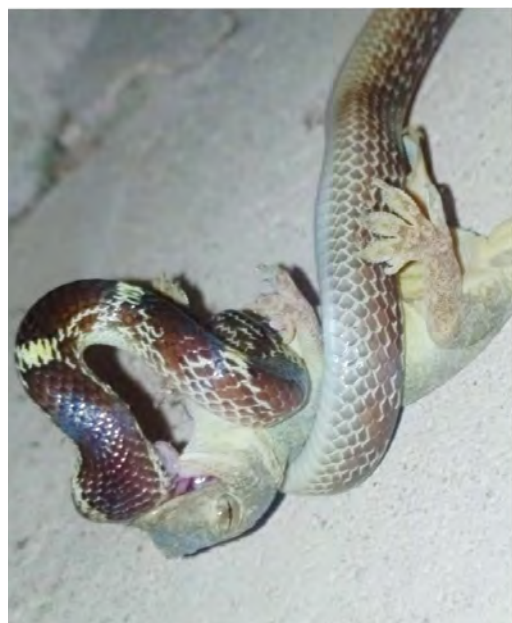
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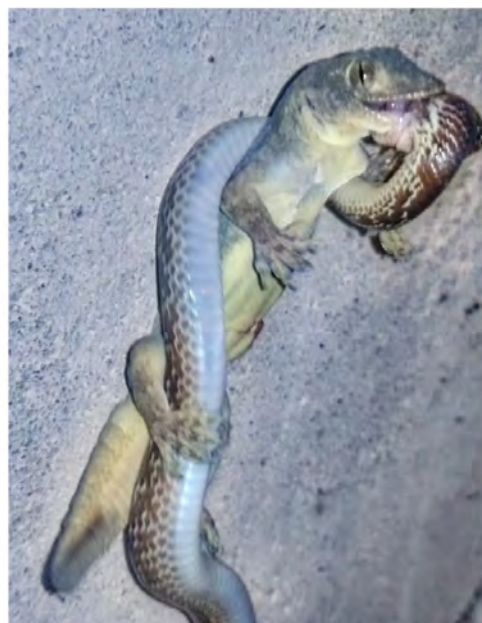
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21 February 2024

## Observation of conflict between Common Wolf Snake and Common House Gecko from Talcher, Odisha

The Common Wolf Snake *Lycodon aulicus* is a common non-venomous species found in southern and southeastern Asia (Kramer 1977). *L. aulicus* is particularly known to feed on Common House Geckos *Hemidactylus frenatus* Dumeril & Bibron, 1836 (Daniel 2002) and consequently, it may frequently be seen in and around residential buildings where these prey species are most commonly encountered (Wangyal et al. 2021). We reported an observation where a combat taking place between *H. frenatus* & *L. aulicus* was



Conflict between Common Wolf Snake, *L. aulicus* (Linnaeus, 1758) and Common House Gecko, *H. frenatus* Duméril & Bibron, 1836. Domination of *H. frenatus* over *L. aulicus* is visible. © Sandipt Maharana.



clearly noticeable and that *H. frenatus* was dominating *L. aulicus*.

The first author's neighbour sought help to remove a snake found in her room on 11 October 2021 at Talcher, Odisha, India (21.1446 N, 85.1996 E). After reaching

the spot, we saw a combat occurring between *H. frenatus* & *L. aulicus*. The observed House Gecko was approximately 14 cm in length and the Common Wolf Snake was about 26 cm in length. We advised the crowd to leave the animals for some



time, and the first author observed the species from a distance and took photographs for documentation. Later, we found *H. frenatus* was dominating over *L. aulicus*. After a few minutes, *L. aulicus* was found not responding, but *H. frenatus* was active and took *L. aulicus* behind the bushes through a little hole.

House Geckos are quite territorial. When confronting other members of the same species, *H. frenatus* has violent tendencies and is more aggressive than other gecko species. It is not uncommon for them to approach and bite other geckos. Medium to large geckos may bite if distressed, however their bite is gentle and will not pierce the skin (Ota 1989). Nonetheless, the reason behind the conflict between *H. frenatus* & *L. aulicus* is predicted due to the gecko being a usual source of food for the Common Wolf Snake, but the gecko overpowered and attacked the snake.

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#246  
21 February 2024

## An observation on neonate litter size of the venomous Saw-scaled Viper from Madurai, India

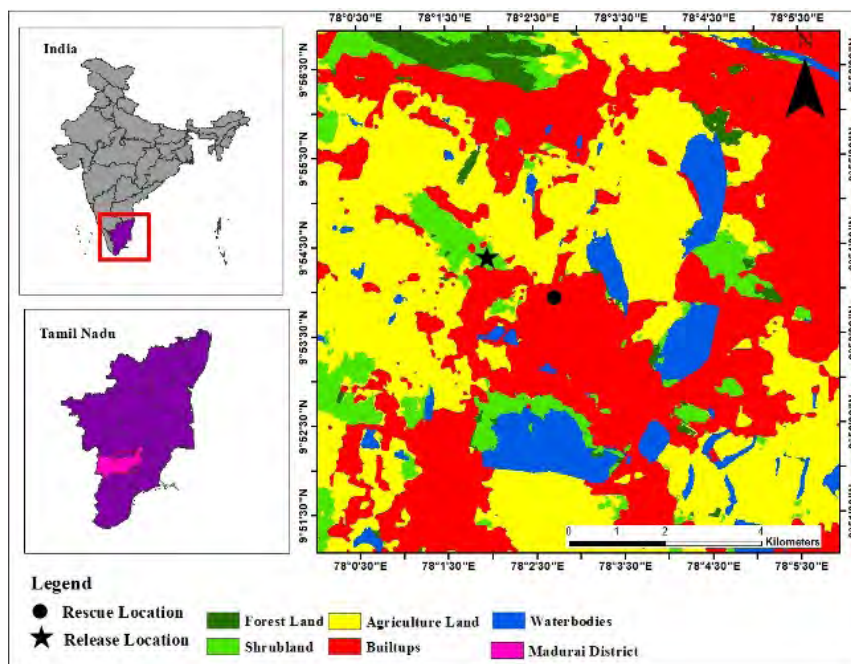
*Echis* is a genus belonging to the family Viperidae which includes all Saw-scaled Vipers, represented by 12 species (Uetz 2023). *Echis carinatus* has five subspecies such as *E.c. carinatus*, *E.c. sochureki*, *E.c. astolae*, *E.c. multisquamatus*, and *E.c. sinhaleus*. In India, *E.c. carinatus* is distributed throughout the peninsular region, whereas *E.c. sochureki* is restricted to northern and western India (Whitaker & Captain 2004). The southern Indian population is widespread in the dry portions of Tamil Nadu inhabiting deciduous, scrub jungle, semi-evergreen forest, grassland, and rocky areas (Ananjeva et al. 2021). It usually dwells under rocks and around smaller bushes (Ananjeva et al. 2021). Morphologically, it is a smaller snake than other viperids, and it is seen in



An adult female Saw-scaled Viper with nine new-born babies.  
© Samson Kirubakaran.



Size of a new-born baby in comparison with 1 Rupee Indian coin.  
© Samson Kirubakaran.



Catch and release location of the *Echis carinatus carinatus*.

many colour forms like brown, olive, reddish, orange, and greyish (Mallow et al. 2003). It is primarily nocturnal and possesses larger eyes and vertical pupils. This note reports the litter size of neonates in the *E.c.*

*carinatus* from Madurai, Tamil Nadu, India. On 7 August 2018, we received a snake-catch call near a house in Srinivasa Colony, located at the foothill of Mottamalai, a lower elevation hillock in Madurai, Tamil Nadu (9.8987 N; 78.0452

E). People had spotted some snakes while turning over a rock behind their house. The rock was firmly embedded in the ground and had a single outlet for access. We quickly responded and arrived at the scene at 1650 h. Upon lifting the rock, we discovered an adult female of *E.c. carinatus* in the process of moulting, accompanied by nine new-borns.

We confirmed that the individual was a gravid female that had recently given birth to the other nine neonates, as evidenced by the presence of a wet amniotic sac beside them. The adult female displayed activity with the neonates aggregating around her. The neonates were observed to have completely shed their skin. After five minutes, the neonates began moving in a different direction.

Consequently, all individuals, including the adult female, were carefully lifted using a snake hook, securely placed in a cotton cloth bag, and released into the nearby shrubland habitat (9.9063 N; 78.0326 E) with the assistance of the forest department staff.



*Echis carinatus* is reported to reproduce up to 23 individuals from Iran (Mallow et al. 2003), 6–8 in India and 3–15 individuals from a northern population of India (Daniel 2002). The neonate individuals are known to range 115–152 mm in length (Daniel 2002). The neonate specimens observed during the rescue were approximately 130 mm in length. The adult female was measured at 30.23 cm in length. While information about the reproductive season within the genus *Echis* is scanty. *E.c. carinatus* is known to reproduce between April and August in northern India. However, the reproductive seasonality for *E.c. carinatus* applies in this southern Indian observation from Madurai, Tamil Nadu. Thus, this may act as a reproductive trait for some viperids.

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#247  
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## Witnessing the negative consequences of transportation networks inside protected forest areas in Hollongapar Gibbon Wildlife Sanctuary, India

MacClelland's Coral Snake *Sinomicrurus maclellandi* (Reinhardt, 1844) is a poisonous snake primarily found in northeastern India, Nepal, China, Bangladesh, Myanmar, Thailand, Vietnam, and Japan. It inhabits temperate, mixed, evergreen tropical, and subtropical forests at elevations ranging 55–2,500 m (Ahmed et al. 2009). The Hollongapar Gibbon Wildlife Sanctuary is situated in the Mariani forest range in the Jorhat District of Assam, which was upgraded from a reserve forest (1881) to a wildlife sanctuary (1997), with an elevation of 100–120 m (Sarkar & Devi 2014).



Dead MacClelland's Coral Snake after the encounter with a vehicle.  
© Monjul Hazarika.

On 10 January 2022, we encountered a dead MacClelland's Coral Snake while visiting Hollongapar

Gibbon Wildlife Sanctuary during our college field trip. The observation was made alongside a popular hiking trail

inside the sanctuary that also serves as a road connecting an isolated community to Dhodar Ali Road, the main road.



Vehicle traffic was seen frequently on the route inside the protected forest area. A vehicle ran over the snake as the driver failed to recognize the juvenile snake amidst the foliage on the road. This is an illustration of the interaction between people and animals, as well as the harm that anthropogenic factors may cause to wildlife, even in protected forest regions. Anthropogenic pressure is a major risk to both wildlife and humans in India.

Due to a variety of factors, including an increase in human settlements, an upsurge in the popularity of outdoor recreation, and rising number of species adapted to survive in human settings, it is predicted that the present state of human-wildlife negative interaction in this developing world will worsen in the future (Manfredo 2015). Snakes are among the animals most at risk of being killed in traffic accidents as they fail to realize the hazards of crossing roads, may use roads as a means to regulate their internal temperatures, or become motionless as a car approaches (Wagner et al. 2021). Similar observations were made by Rattanawanawong et al. (2022) during surveys conducted along a 48-km long highway in Khao Yai National Park, Thailand from February 2018 to January 2019 where they reported the death of a MacClelland's Coral Snake.

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- Citation:** Hazarika, M. & U. Sarma (2024). Witnessing the negative consequences of transportation networks inside protected forest areas in Hollongapar Gibbon Wildlife Sanctuary, India. *Reptile Rap* #247, In: *Zoo's Print* 39(2): 09–10.

## Record of a Short-eared Owl in Pulicat Bird Sanctuary, Andhra Pradesh, India

Short-eared Owl *Asio flammeus* is a widespread winter visitor and a passage migrant to the Indian mainland subcontinent and occasional in Sri Lanka and Maldives (Ali & Ripley 1987; Rasmussen & Anderton 2012). It is generally a species of low country, frequenting open undulating grassy country dotted with bushes, sparsely scrubbed hillsides, tall grassland on the margin of jheels, and also in semi-desert environment (Ali & Ripley 1987).

According to eBird database (2021), the species is rare in Andhra Pradesh and records are from a few locations. The confirmed records are from Rollapadu Bird Sanctuary and its surroundings in Kurnool District. On 16 December 2019, during a birdwatching trip to Attakanitippa (13.7244 N; 80.1237 E) located in Pulicat Bird Sanctuary, Nellore District, Andhra Pradesh, I sighted a Short-eared Owl *Asio flammeus* perched on the thickets of *Prosopis juliflora* (1.8 m height). The species had not been recorded in the Pulicat area and adjacent locations including Sriharikota in earlier studies (Manakadan et al. 2009; David et al. 2018). Hence, record of the species in Pulicat is worth mentioning, both for Andhra Pradesh and Pulicat-Sriharikota.

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Short-eared Owl *Asio flammeus* in Pulicat Bird Sanctuary, Nellore District, Andhra Pradesh. © A. Kalaimani.

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### A. Kalaimani

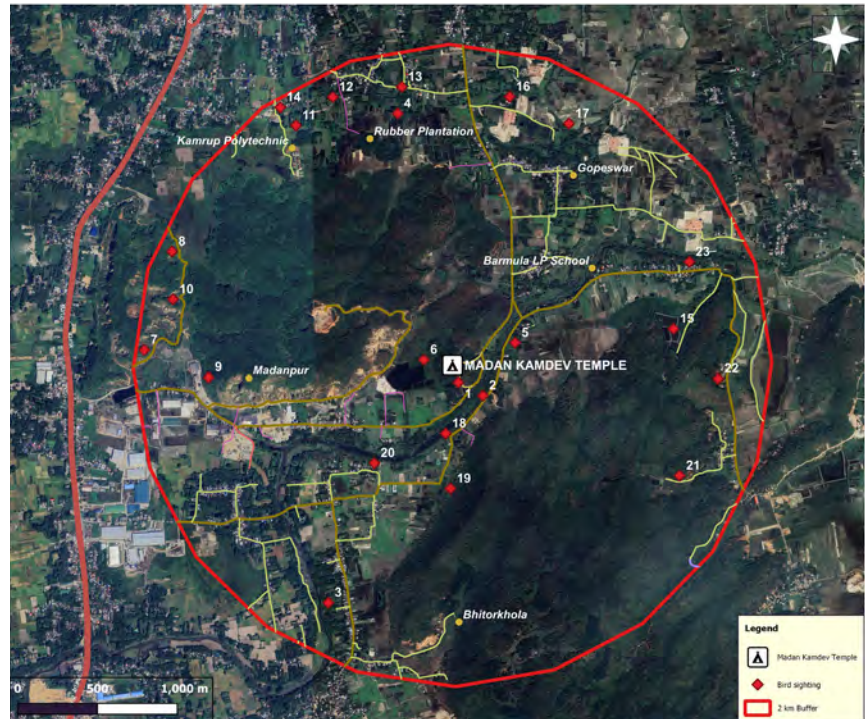
Care Earth Trust, No. 4, 20<sup>th</sup> Street, Thillaianga Nagar, Chennai, Tamil Nadu 600061, India.  
Email: manikalai16@yahoo.com

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## A checklist of avian species spotted near Madan Kamdev temple, Assam, India

Assam, being rich in biodiversity, is hosting around 950 species of birds which includes both endemic and winter migrants. Madan Kamdev temple is a famous archaeological site that includes a group of dilapidated temples and unique sculptures that delineates ancient society and customs of Assam. Along with its neighbouring villages, entire region is divided into hills, plains and low-lying areas (Sharma et al. 2020). Apart from its historical importance, this region hosts a rich avifaunal diversity. Hence, the present study is intended to prepare a checklist of birds that are common to the study area.

The survey performed within 2 km radius range of Madan Kamdev temple (26.3195 N, 91.7420 E) located in Dewangiri Hill near Baihata Chariali of Kamrup District of Assam. The study area included hills, plains and low-lying areas falling within the proposed region. A continuous survey on avifaunal diversity in the



Google earth map showing study sites. Source: Google maps.

mentioned area was done during suitable weather conditions from January 2021 to August 2023 in the mornings (0600–1000 h) and afternoons (1300–1700 h) using Point Transect survey method given by Bibby et al. (2000). Photos of birds captured by Cannon EOS 200 DII camera, were identified using field guide (Grimmett et al. 2016) and their IUCN status was listed (Table 1).

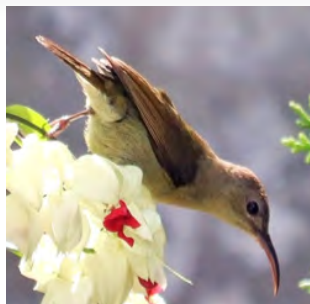
Total 46 avian species belonging to 32 different

families were recorded in the survey. Families showing dominance are Sturnidae, Columbidae and Ardeidae, each having three species in that region. Out of 46, maximum species come under IUCN 'Least Concern' category, however, one 'Vulnerable' and one 'Near Threatened' species were also recorded in the survey (Table 1).

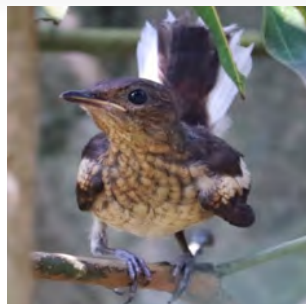
The current survey is the first attempt to list the avifaunal diversity within the mentioned area. Since this is a preliminary



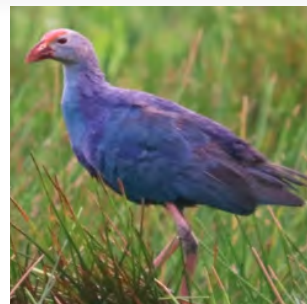
*Aethopyga siparaja* (male).



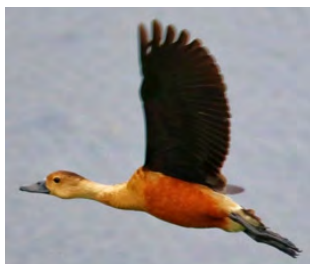
*Aethopyga siparaja* (female).



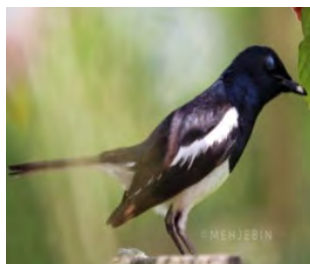
*Copsychus saularis* (female).



*Porphyrion poliocephalus*.



*Dendrocygna javanica*.



*Copsychus saularis* (male).



*Streptopelia chinensis*.



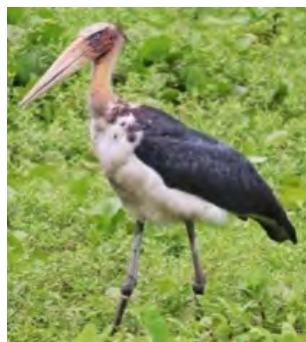
*Acridotheres tristis*.



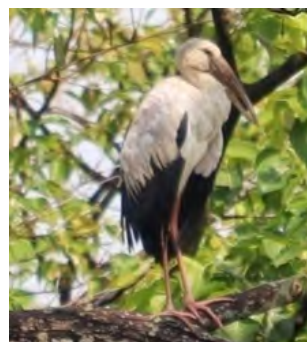
*Ardea intermedia*.



*Vanellus indicus*.



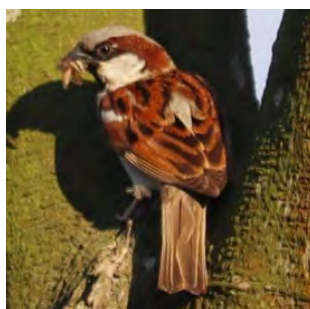
*Leptoptilos javanicus*.



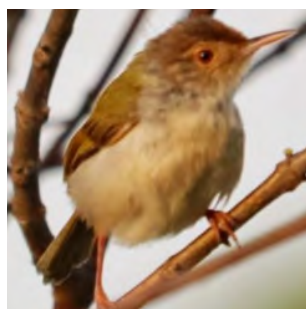
*Anastomus oscitans*.



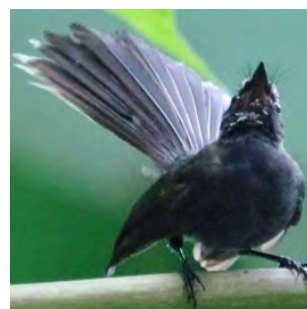
*Gracupica contra*.



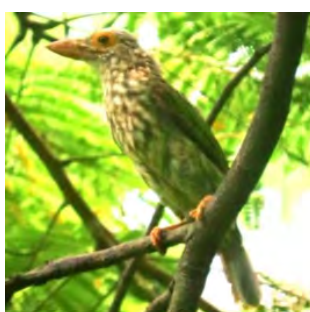
*Passer domesticus*.



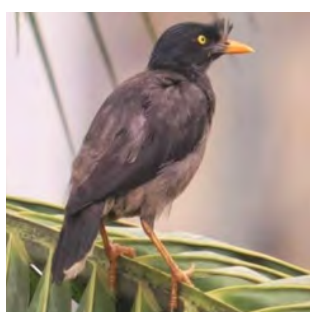
*Orthotomus sutorius*.



*Rhipidura javanica*.



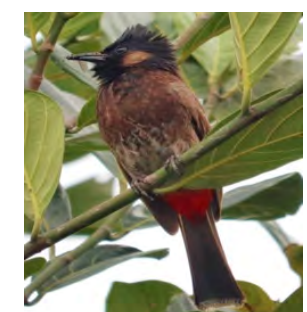
*Psilopogon lineatus*.



*Acridotheres fuscus*.



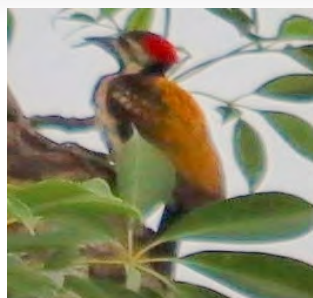
*Ardeola grayii*.



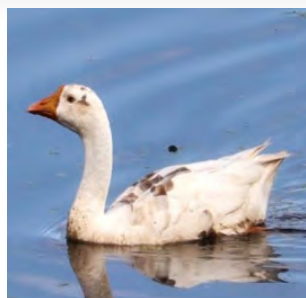
*Pycnonotus cafer*.



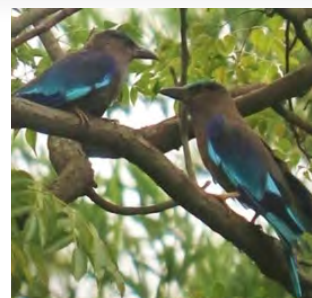
*Psittacula krameri.*



*Dinopium benghalense.*



*Anser sp.*



*Coracias affinis.*



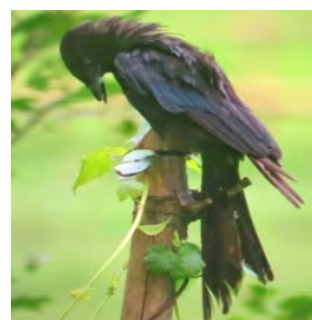
*Anhinga melanogaster.*



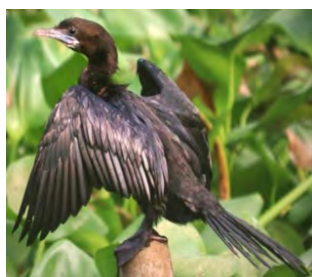
*Ploceus philippinus.*



*Lanius cristatus.*



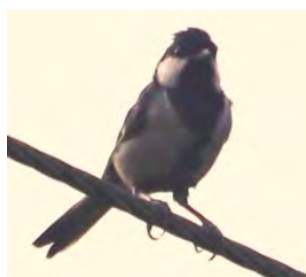
*Dicrurus macrocercus.*



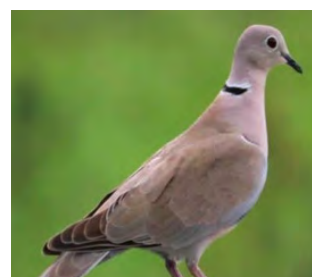
*Microcarbo niger.*



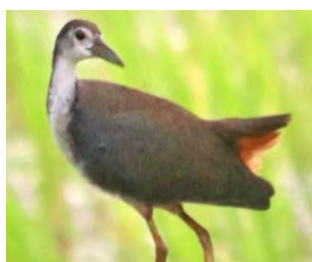
*Lanius tephronotus.*



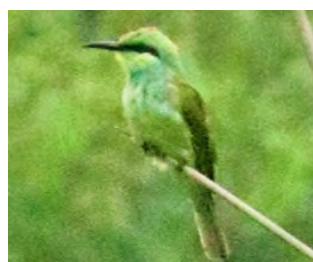
*Parus cinereus.*



*Streptopelia decaocto.*



*Amaurornis phoenicurus.*



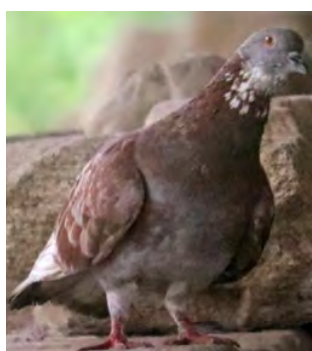
*Merops orientalis.*



*Zosterops palpebrosus.*



*Centropus sinensis.*



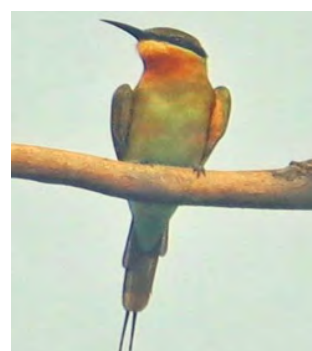
*Columba livia.*



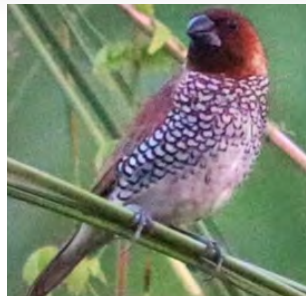
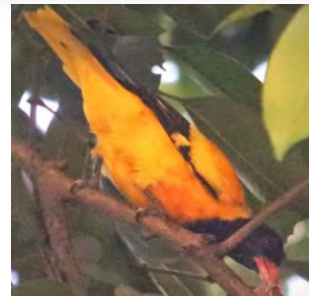
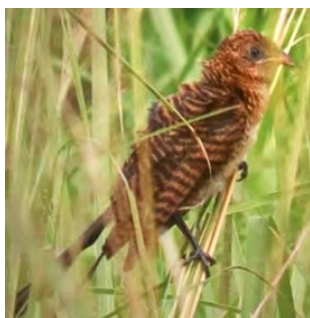
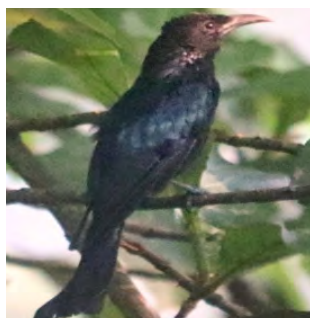
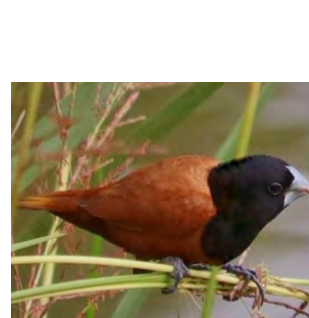
*Ardea purpurea.*



*Hirundo rustica.*



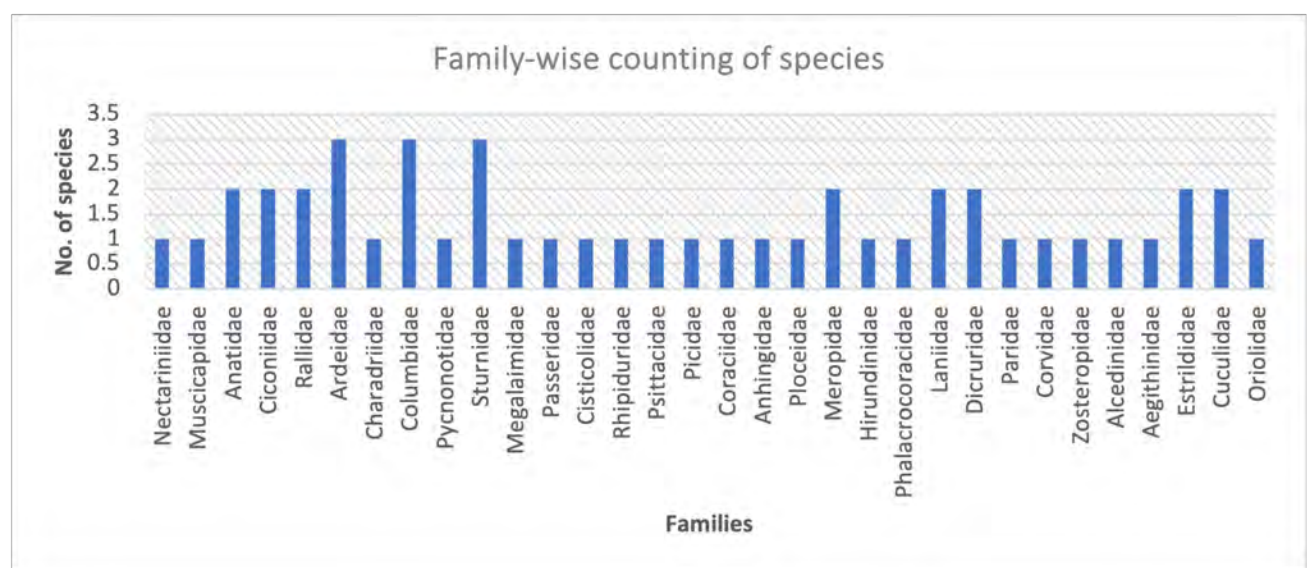
*Merops philippinus.*

*Halcyon smyrnensis.**Aegithina tiphia.**Lonchura punctulata.**Oriolus xanthornus.**Cacomantis merulinus.**Dicurus hottentottus.**Corvus splendens.**Lonchura atricapilla.***Table 1. Checklist of birds of Madan Kamdev Temple.**

	Common name	Scientific name	Family	IUCN Red List status
1	Crimson Sunbird	<i>Aethopyga siparaja</i>	Nectariniidae	LC
2	Oriental Magpie-Robin	<i>Copsychus saularis</i>	Muscicapidae	LC
3	Lesser Whistling-Duck	<i>Dendrocygna javanica</i>	Anatidae	LC
4	Lesser Adjutant	<i>Leptoptilos javanicus</i>	Ciconiidae	VU
5	Asian Openbill	<i>Anastomus oscitans</i>	Ciconiidae	LC
6	Grey-headed Swampphen	<i>Porphyrio poliocephalus</i>	Rallidae	LC
7	Intermediate Egret	<i>Ardea intermedia</i>	Ardeidae	LC
8	Indian Pond-Heron	<i>Ardeola grayii</i>	Ardeidae	LC
9	Red-wattled Lapwing	<i>Vanellus indicus</i>	Charadriidae	LC
10	Spotted Dove	<i>Streptopelia chinensis</i>	Columbidae	LC
11	Red-vented Bulbul	<i>Pycnonotus cafer</i>	Pycnonotidae	LC
12	Indian Pied Starling	<i>Gracupica contra</i>	Sturnidae	LC
13	Common Myna	<i>Acridotheres tristis</i>	Sturnidae	LC
14	Jungle Myna	<i>Acridotheres fuscus</i>	Sturnidae	LC
15	Lineated Barbet	<i>Psilopogon lineatus</i>	Megalaimidae	LC
16	House Sparrow	<i>Passer domesticus</i>	Passeridae	LC
17	Common Tailorbird	<i>Orthotomus sutorius</i>	Cisticolidae	LC
18	Malaysian Pied-Fantail	<i>Rhipidura javanica</i>	Rhipiduridae	LC
19	Rose-ringed Parakeet	<i>Psittacula krameri</i>	Psittacidae	LC
20	Black-rumped Flameback	<i>Dinopium benghalense</i>	Picidae	LC
21	Domestic Goose	<i>Anser</i> sp.	Anatidae	LC
22	Indochinese Roller	<i>Coracias affinis</i>	Coraciidae	LC

	Common name	Scientific name	Family	IUCN Red List status
23	Oriental Darter	<i>Anhinga melanogaster</i>	Anhingidae	NT
24	Baya Weaver	<i>Ploceus philippinus</i>	Ploceidae	LC
25	Barn Swallow	<i>Hirundo rustica</i>	Hirundinidae	LC
26	Blue-tailed Bee-eater	<i>Merops philippinus</i>	Meropidae	LC
27	Little Cormorant	<i>Microcarbo niger</i>	Phalacrocoracidae	LC
28	Brown Shrike	<i>Lanius cristatus</i>	Laniidae	LC
29	Grey-backed Shrike	<i>Lanius tephronotus</i>	Laniidae	LC
30	Black Drongo	<i>Dicrurus macrocercus</i>	Dicruridae	LC
31	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	Rallidae	LC
32	Eurasian Collared-Dove	<i>Streptopelia decaocto</i>	Columbidae	LC
33	Asian Green Bee-eater	<i>Merops orientalis</i>	Meropidae	LC
34	Cinereous Tit	<i>Parus cinereus</i>	Paridae	LC
35	Rock Pigeon	<i>Columba livia</i>	Columbidae	LC
36	Purple Heron	<i>Ardea purpurea</i>	Ardeidae	LC
37	House Crow	<i>Corvus splendens</i>	Corvidae	LC
38	Indian White-eye	<i>Zosterops palpebrosus</i>	Zosteropidae	LC
39	White-breasted Kingfisher	<i>Halcyon smyrnensis</i>	Alcedinidae	Lc
40	Common Iora	<i>Aegithina tiphia</i>	Aegithinidae	LC
41	Scaly-breasted Munia	<i>Lonchura punctulata</i>	Estrildidae	LC
42	Chestnut Munia	<i>Lonchura atricapilla</i>	Estrildidae	LC
43	Plaintive Cuckoo	<i>Cacomantis merulinus</i>	Cuculidae	LC
44	Greater Coucal	<i>Centropus sinensis</i>	Cuculidae	LC
45	Hair-crested Drongo	<i>Dicrurus hottentottus</i>	Dicruridae	LC
46	Black-hooded Oriole	<i>Oriolus xanthornus</i>	Oriolidae	LC

LC—Least Concern | VU—Vulnerable | NT—Near Threatened.



Family-wise counting of species.

survey of the study area, future updates are always encouraged in getting a more conclusive checklist of birds common to this area which will definitely help in conservation of bird diversity.

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## The first record of Grey-headed Fish-Eagle and Brown-breasted Flycatcher from Makwanpur District of Nepal

The Grey-headed Fish-Eagle *Ichthyophaga ichthyaetus* is a raptor species, widely distributed in countries across southern and southeastern Asia (Birdlife International 2023). It lives near slow-moving rivers and lakes in forested areas, feeding almost entirely on fish, eating on perch, and occasionally in flight (Grimmett et al. 2016).

The species is listed as 'Near Threatened' (Birdlife International 2023) internationally, and it has been listed as Critically Endangered in Nepal's National Red Data Book (Inskipp et al. 2016) showing that the species is facing more threats nationally. It is a rare and local inhabitant of Nepal, that has been observed in Kaski, Chitwan, Kanchanpur, Bardiya, Kailali, Dang, Bara, Sunsari, and Morang districts (Inskipp et al. 2016).

Brown-breasted Flycatcher *Muscicapa muttui* is a forest



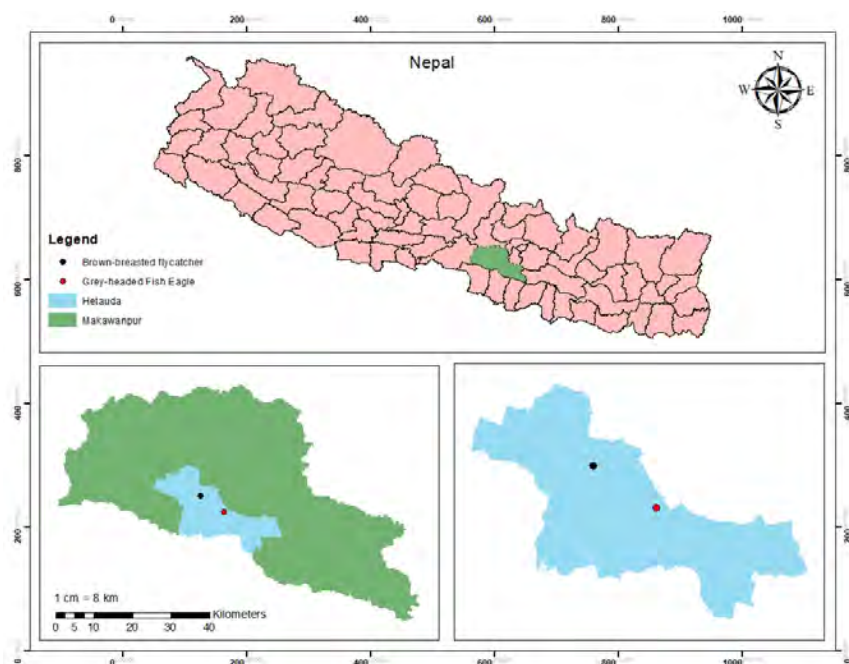
A Grey-headed Fish-Eagle observed in Hetauda, Makwanpur. © Nikeet Pradhan.



A Brown-breasted Flycatcher perched on the wire observed in Hetauda, Makwanpur. © Nikeet Pradhan.



A Grey-headed Fish-Eagle in flight. © Nikeet Pradhan.



Map showing the records of Grey-headed Fish-Eagle and Brown-breasted Flycatcher.

bird belonging to the family Muscipidae. The species is found in the broadleaved forest, and its typical winter habitat in India is evergreen

for the most part resting, frequenting thick shrubs and tangles, forest margins, and amid dense vegetation near rocky streams (Ali & Ripley

1987). It is classified as 'Least Concern' in both global and national status; however, the population trend is declining (BirdLife International 2023). There are just a few reports of this vagrant species in Nepal, from the districts of Kathmandu, Kaski, Sunsari, Lalitpur, Chitwan, and Taplejung.

Both of these species have not been recorded from the Makwanpur District yet (Inskipp et al. 2016; eBird 2023), making this the first record of the species in Makwanpur District, Nepal.

The observation was made during an ornithological survey using the point count method and the line transect method in the Makwanpur District's Nawalpur Saraswati (Basamadi) Community Forest and Macchaplan. In Hetauda's previously studied areas, Macchaplan recorded 164 bird species and the Institute of Forestry Complex recorded 132 bird species showing the areas are rich in bird diversity (Bajagain et al. 2020; Bhusal & Paudel 2021). The elevation is 450 m and the climate is tropical, with an annual

precipitation of roughly 2,474 mm and an average temperature of 22.7°C (CBS 2017). The bird was photographed with a Nikon D7000 and seen using Nikon Acculon binoculars 8 x 42.

### Results

Brown-breasted Flycatcher was photographed on 20 August 2022 at 1126 h in Makwanpur District, Nawalpur Saraswoti (Basamadi) Community Forest (27.4526 N & 85.0001 E) using the point count method. It had a grey head, brown flanks, and two noticeable dark mustache lines, and the head was dark brown above and white below. The photo of the bird was afterward verified with ornithologists, who confirmed that it was a Brown-breasted Flycatcher.

A big bird perching in the *Shorea robusta* tree was observed exactly at 1623 h (27.4151 N & 85.0556 E) on a clear day while performing a line transect survey of birds on 26 July 2023 in Macchaplan. It was in flight when it noticed us and had a contrasting white belly and a white tail with a broad black band across the tip, both of which were contracting traits in its identification as an adult Grey-headed Fish-Eagle.

The adult Brown-breasted flycatcher was recorded in the Nawalpur Saraswoti (Basamadi) Community Forest, which is one of Makwanpur District's active Community Forests. The Grey-headed Fish-Eagle was first observed in the Macchaplan, a significant Fisheries Promotion and Conservation Center in the Makwanpur District. Habitat loss, human disturbance, siltation, hunting, overfishing outside protected

areas, illegal fishing within protected areas, as well as the deterioration of habitat quality caused by pollution, including the effects of pesticides that are widely and frequently used, particularly in the lowlands, endangers the survival of species (Thiollay 1978; BirdLife International 2023). The Machhaplan Complex's primary risks to avifauna were identified as increasing human settlement, industry, and pollution (Bhusal & Paudel 2021).

There are no previous records of the Brown-breasted Flycatcher and Grey-headed Fish-Eagle from the Makwanpur District of central Nepal (eBird 2023; Inskipp et al. 2016). Our study concludes that this is the first record of Brown-breasted Flycatcher and Grey-headed Fish-Eagle reported from Nepal's Makwanpur District.

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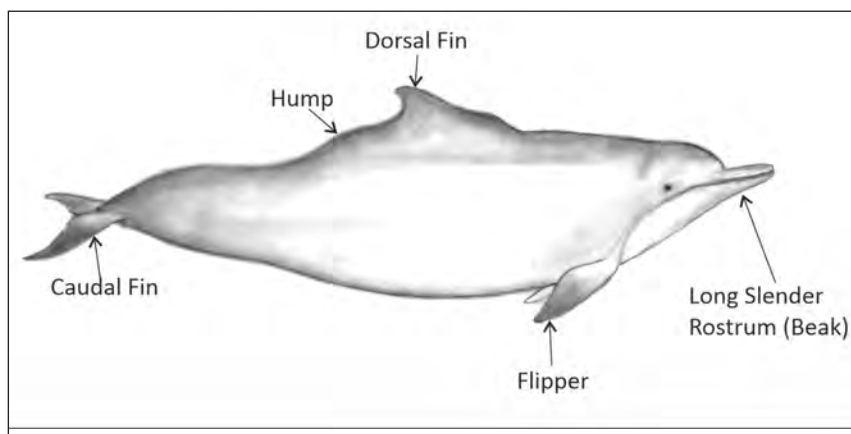
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## The occurrence of Indo-Pacific Humpback Dolphin in estuarine area of Narmada River, Gujarat

Gujarat State is one of the maritime states endowed with the longest coastline of all the Indian states with rich coastal biodiversity (Sengupta & Deshmukh 2000). The intertidal zone of the coastal area of the state shelters a variety of marine life, ranging from big vertebrates (including marine mammals) to small invertebrates such as gastropods (Singh 2003). The Indo-Pacific Humpback Dolphin *Sousa chinensis* (Osbeck, 1765) is a marine mammalian species belonging to the order Cetacea and Delphinidae family (Vivekanandan & Jeyabaskaran 2012). It is categorized as 'Vulnerable' as per the IUCN Red List of Threatened Species (Jefferson et. al. 2017; IUCN 2023). It is a Schedule-I marine mammal as per the Indian Wildlife (Protection) Amendment Act, 2022. It is included in Appendix I of the Conservation of International Trade of Endangered Species of Flora and Fauna (CITES) and listed in Appendices II of the Convention on Migratory



A pencil sketch showing morphological identification characters of Humpback Dolphin.



A newspaper cutout of a claim of dolphin sighting by local people in the past. (Source: Times of India, 06 May 2019).

Species (CMS). Several studies have described various habitats wherein Indo-Pacific Humpback Dolphins occur (Jefferson 2000; Karczmarski et al. 2000, 2016; Folkens et

al. 2002; Shirihai et al. 2006; Jefferson & Smith 2016). As per these studies, they mainly live along coastal areas such as bays, lagoons, estuaries, mangrove forests, coral



Detection of Indo-Pacific Humpback Dolphin near Mahegam Village, Narmada Estuary (Bharuch District). The inset picture shows the characteristic hump of this species. © GEER Foundation.



Long slender rostrum (beak) of Indo-Pacific Humpback Dolphin in the inset picture. © GEER Foundation.

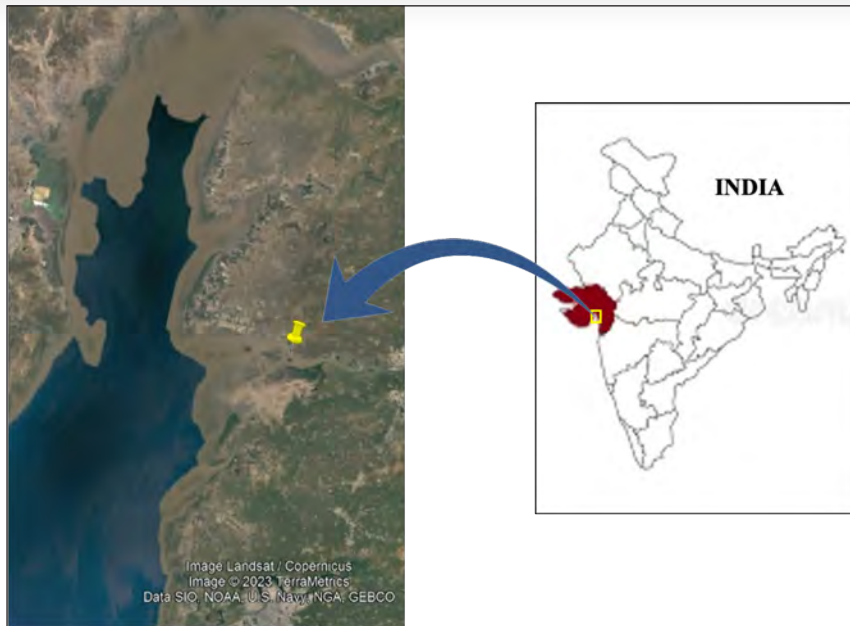
reefs, sand-banks, large river mouths, and other watery regions and they remain close to coastal habitats. It inhabits the shallow water coastal seas and remain mostly within 400 m of the shore, in water less than 15 m deep (Karczmarski et al. 2000). The distribution records of different subspecies

of Humpback Dolphins *Sousa* spp. in coastal regions worldwide (Würsig et al. 2018). This species has been well distributed along the coast of the country (Lydekker 1903, 1908; Mohan 1982, 1983; Pillai & Kasinathan 1988; Parsons 1998; Kumaran 2002; Afsal et al. 2008; Muralidharan 2013).

It is also frequently found in the offshore shallow water areas in Marine National Park & Sanctuary, Jamnagar of Gujarat State (Singh 2003). The Narmada Estuary and adjoining waterbodies constitute very significant area; various inland and coastal fauna species have been reported at different locations (Kamboj et al. 2017).

In addition to the records by researchers, news of local villagers of Sakkarapur Borbatha (21.6728 N & 72.9742 E) in Ankleshwar Taluka (Bharuch District) had claimed having observed some dolphins in the Narmada River, and their claim was published in a newspaper (Times of India 2019). However, they had not reported the species of dolphin they had encountered.

Therefore, the research team of GEER Foundation conducted long-term ecological monitoring of Narmada Estuary initiated to keep vigilant watch for the occurrence of any species of dolphin in coastal/ riverine area at the junction of Narmada River and the Arabian sea near different villages (e.g., Mahegam, Suva, Jageshwar, and surrounding area of Alia bet).



Location of Indo-Pacific Humpback Dolphin sighting in the estuarine area near Mahegam Village of Bharuch Taluka (Bharuch District).

On 2 December 2022, during field observations conducted from a pre-established observation point in the estuarine area of Narmada River near Mahegam Village (21.6711 N & 72.7583 E) of Bharuch Taluka (Bharuch District), the team captured sufficient photographic records of three individuals of the species which was later identified as Indo-Pacific Humpback Dolphin. Though the photographs taken by GEER researchers can be considered as record shots, the dolphin's morphological characters such as a long slender rostrum (beak) and a hump on the back could be seen in the photographs providing

necessary evidence of the presence of this species in estuarine area near Mahegam Village. The team also conducted a rapid interview of local fishermen. According to responses of the fishermen, some dolphins (locally called "Magra") are occasionally seen around full moon day during high tide in this area. However, they did not have proper information about the species. It is well-known that sightings of dolphins are increased during high tide (Fury & Harrison 2011).

Thus, the photographic record by the GEER Foundation research team is the first authentic record of the

occurrence of the Indo-Pacific Humpback Dolphin in the Narmada River estuary in the Bharuch District near the Gulf of Khambhat (GoKh).

### Recommendations

This Schedule-I species needs effective protection against anthropogenic activities. The GEER Foundation team's confirmed record of occurrence in the Narmada Estuary (near Mahegam village) indicates the critical need to conserve this species and its habitats from human disturbance. Gujarat Forest Department of Bharuch District and NGOs in the area should organize awareness programmes in Mahegam and nearby villages to correctly identify this species and make people aware of the importance of its conservation.

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## World Wildlife Day 2023 marked for Dark Sitana *Sitana fusca* conservation in Nepal

Every year, World Wildlife Day is celebrated on 03 March to commemorate the conservation efforts. Nepal Conservation and Research Center (NCRC) and Mithila Wildlife Trust (MWT) jointly marked the day in Madhesh province of Nepal with two different activities for Dark Sitana *Sitana fusca* aligning the theme of the day “Partnership for Conservation” among women group and school students.

The Dark Sitana *Sitana fusca* is a highly threatened lizard endemic to Nepal, so far only known from Madhesh province of Nepal. Therefore, with support from the Rufford Foundation, UK, Auckland Zoo, New Zealand and Katie Adamson Conservation Fund, USA; a conservation and research project for Dark Sitana has been initiated. The outreach sessions were conducted to raise awareness on ecological and conservation importance of the species for peri-forest women group of Dudhpani community forest, Dhanusha.



Team leader Santosh Bhattarai delivering a session on ecology and conservation of Dark Sitana to the members of Dudhpani community forest.



Group photo after the session.

We explored the local names and beliefs to respect the indigenous perceptions towards reptiles. We presented slides and video sessions to know if they were aware of the presence of Dark Sitana in their community forest or not.

Most of the women confused the Dark Sitana with juvenile Common Garden Lizard *Calotes versicolor*. However, they could differentiate when we played videos of male Dark Sitana displaying its dewlap. After the video session, some



Group photo with students and teacher after the session.

of the women could inform us that they had seen the species in their community forest while collecting firewood and grasses. We distributed a copy of printed poster of Dark Sitana to the participants. The session also provided us insights to select sites for ecological survey of the species.

Some of the key information take home messages from the session were: Most local women were ignorant about Dark Sitana presence, its conservation criticality and threats the lizards are facing due to human activities. They were made aware that Dark Sitana is only restricted to Madhesh province and should

be protected. They could be convinced not to kill any lizard species.

### Session with students

We also marked the day with the students at Mahadev Adharbhoot school to impart conservation importance of Dark Sitana and other wildlife in young minds. We found students were very keen and inquisitive to learn about biodiversity around them. We displayed the video of Dark Sitana and other wildlife and presented about their behaviour, ecological significance and how students could be a part of the larger conservation arena.

The aim of the session was to encourage the students and motivate them towards wildlife conservation. We distributed a copy of poster of Dark Sitana to each student so that they could remember the species. We also conducted outreach sessions for students in ten other schools and communities for Dark Sitana conservation.

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**Submitted by Santosh Bhattarai & Bishal Prasad Neupane, Nepal.**  
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## Vulture Conservation Awareness Programme during Wildlife Week Celebration, October 2023

Every year from the 2–8 October, India celebrates National Wildlife Week. The primary aim of this week is to protect and preserve the country's rich flora and fauna. The concept of Wildlife Week was first introduced in 1952, with a steadfast goal of safeguarding the lives of endangered and threatened animal species for the long term.

The BNHS-Vulture Conservation Breeding Centre, in partnership with Van Vihar National Park & Zoo, Bhopal, Madhya Pradesh celebrated the event with this year's theme, "Partnership for Wildlife Conservation", emphasizing the essential role of collaborative efforts in safeguarding and sustaining the country's rich and varied wildlife.

A drawing competition showcasing the artistic abilities of students was held in Bhopal with the objective of raising awareness about the significance of vultures



Smt. Padmapriya Balakrishnan, field director distributed prizes and certificates to winners.



Prize winners.



Prize-winning drawings.

and their crucial role in the ecosystem.

The competition was categorized into three categories based on the students' grades: Any Vulture Species (6–8 std), Vultures and Ecosystem (9–10 std), and Role of Vultures in an Ecosystem and Threats (11–12 std).

Sixty students (60) representing from three schools participated. The top 10 drawings and paintings were selected for recognition, and the winners were bestowed prizes and certificates by Smt. Padmapriya Balakrishnan, field director of Van Vihar National Park & Zoo.

Submitted by Arockianathan Samson, BNHS-Vulture Conservation Breeding Centre, Bhopal, Madhya Pradesh. Email: [kingvulture1786@gmail.com](mailto:kingvulture1786@gmail.com)

## Vulture Awareness Day celebrated with inter-school drawing competition in Kamrup District, Assam

The International Vulture Awareness Day was celebrated on 2 September 2023 by the Vulture Conservation Breeding Centre, Assam with a spectacular interschool drawing competition. This event drew participation from twenty schools, engaging nearly 1,200 students from both urban and rural areas of Kamrup District, Assam.

The competition had the theme of “Nature and Vultures,” inviting students to express their creativity and raise awareness about these endangered birds. A diverse array of artistic talents was on display as students unleashed their imaginations on paper.

In a heartwarming display of inclusivity, both private and government schools representing various economic backgrounds, came together for this meaningful event. To ensure fairness, the best drawings from each school were selected as winners.

This approach celebrated the essence of unity in diversity.

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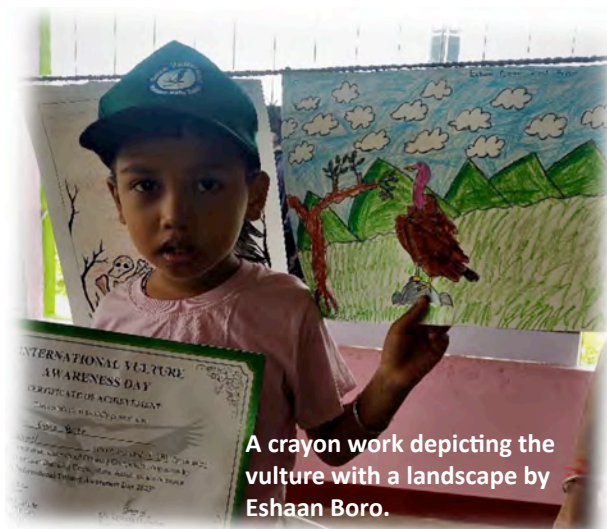


**A painstaking pencil shading by Samir Thakuria.**



**A life like impression in watercolour by Anamika Chaudhary.**

Submitted by Aniket Pawar & Sachin Ranade, Vulture Conservation Breeding Centre, Kamrup, Assam.  
Emails: [s.ranade@bnhs.org](mailto:s.ranade@bnhs.org) & [a.pawar@bnhs.org](mailto:a.pawar@bnhs.org)



A crayon work depicting the vulture with a landscape by Eshaan Boro.



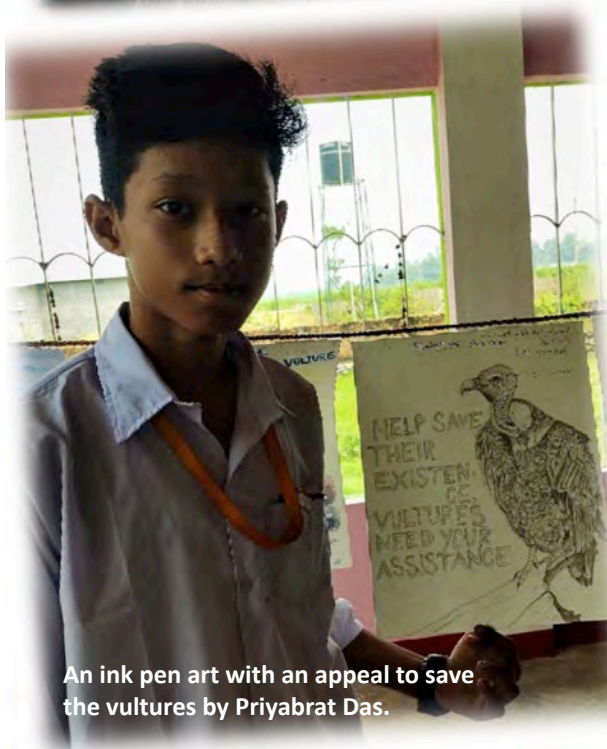
An expression with crayons by Bibek Kachari.



A cartoonist impression in gouache by Alvan Marak.



A delicate detailed depiction of vulture in watercolour by Limpee Dolai.



An ink pen art with an appeal to save the vultures by Priyabrat Das.



A water colour painting with message to save vultures by Hrideep Das.



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