

## Confirmatory record of Indian Eyed Turtle from Lumbini in Nepal



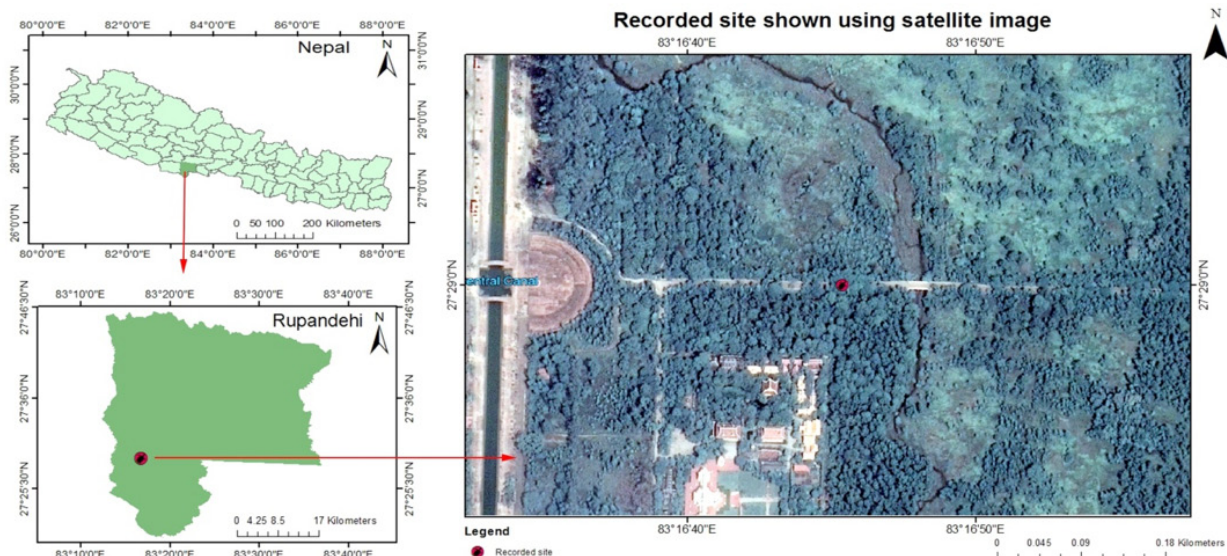
Dorsal and frontal view of *Morenia petersi* captured in Lumbini of Rupandehi District. ©Geeta Bhandari.

The Indian Eyed Turtle *Morenia petersi* (Anderson, 1879) is a small freshwater geoemydid turtle with its extant in Bangladesh, India, and Nepal (Schleich & Kästle 2002; Das & Sengupta 2010). In Nepal, the species is only reported from Gainda Tal of Rupandehi District based on an empty shell collected in a gas station (Biodiversity Profile Project 1995). The presence and origin of *Morenia petersi* in Nepal is stated as uncertain by Asian Turtle Trade Working Group (2000). An extensive survey was carried out and concluded it

to be locally extinct from Nepal (Aryal et al. 2009). Kästle et al. (2013) had affirmed its occurrence questionable in Nepal due to inadequate evidence. Here, we present the first photographic evidence of *Morenia petersi* from Nepal.

Lumbini lies in Rupandehi District of Lumbini Province under the current administrative division of Nepal. This popular World Heritage Site experiences a subtropical monsoon climate and here the wetlands and forest support a variety of aquatic as well as





### Location of *Morenia petersi* sighting in Lumbini, western Nepal.

terrestrial faunal diversity. Turtle Rescue and Conservation Centre (TRCC) is the only community-based organization working solely to conserve turtles in Nepal (Rai 2017). Information on turtles is received from all over the country through its Facebook page and group. Further, the organization also monitors any sort of information on turtles that is being publicly shared on social media. Di Minin et al. (2015) have mentioned that social networks are an emerging data source for research and can play an important role in conservation science.

On 2 August 2020, a short video of Indian Peacock

Softshell Turtle *Nilssonia hurum* was uploaded on Facebook from Lumbini by Mr. Janga Bahadur Basnet, who works as a security incharge at Lumbini World Heritage Site. On inquiring, he provided us with turtle photos he had snapped in the area. It is confirmed that Indian Flapshell Turtle *Lissemys punctata*, Indian Roofed Turtle *Pangshura tecta*, and Brown Roofed Turtle *Pangshura smithii* are found in the area. A photo of an uncommon turtle species was also uploaded by the workmate of the person. The species was identified as *Morenia petersi* following Schleich & Kästle (2002), Das & Sengupta (2010), and

Kästle et al. (2013). As per the key witness, the specimen was captured in Lumbini (27.4833°N, 83.2792°E; 98m elevation) on 30 July 2020 at 09.14 h at the side of a road adjoining Harhewa River. The date stamp on the photo endorses the date and time mentioned by the witness. It was raining on that day and the surrounding area was heavily inundated. The witness found this turtle different, thus snapped photos and released into Harhewa River.

Based on the evidence, a field survey was carried out for two days in October 2020 following the safety protocols





Released site of *Morenia petersi* in Harhewa River.

of the COVID-19 pandemic during the post lockdown period. The turtle recorded site is a floodplain area with several pools in the vicinity. The GPS coordinates were recorded and the photos of the habitat captured. The dominant grasses in the area are Kans Grass *Saccharum spontaneum* and Kunai Grass *Imperata cylindrica* whereas the common trees included Kadam *Neolamarckia cadamba*, Northern Indian Rosewood *Dalbergia sissoo*, Cotton Tree *Bombax ceiba*, and Mango *Mangifera indica*. Water Hyacinth *Eichhornia crassipes* was not observed as it might have been swept

away by the monsoon flood. We interviewed the key witness and interacted with local people on the occurrence of Indian Eyed

Turtles by showing Turtles Field ID Cards by ARCO-Nepal (2012).

The biology of *Morenia petersi* is poorly known and documentation of natural history will aid in the informational gap. The species is typically associated with oxbow lakes, however, in recent times, it has been documented from the floodplain of Sarju River in the Terai region (Mital et al. 2019), and a small pond that was originally part of an irrigation canal in West Bengal (Mahapatra et al. 2020). The species has a fragmented distribution, even in its home



Potential habitat of *Morenia petersi* in Lumbini.





range (Das & Sengupta 2010), and is likely extirpated from most of its previous range forming isolated populations in only some areas (Mital et al. 2019; Mahapatra et al. 2020). Globally, the species is categorized as 'Vulnerable' under IUCN Red List and is listed in Appendix II of CITES. This record of a live specimen of *Morenia petersi* in Lumbini is a strong indication that its small population might be still dwelling in the lowlands of western Nepal.

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