

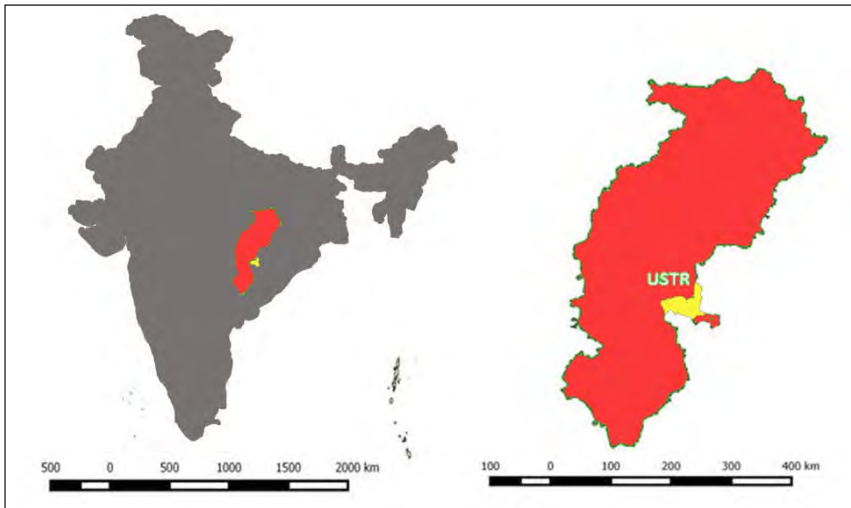
## First record of Tricarinate Hill Turtle from Chhattisgarh, India



Tricarinate Hill Turtle in its natural habitat. © M. Suraj.

The Tricarinate Hill Turtle *Melanochelys tricarinata* (Blyth, 1856). The three-keeled land turtle belongs to the family Geoemydidae and order Testudines. It can attain a length of 174mm (straight carapace length) and inhabits the riverine plain at around 500m (Das 2009). The turtle derives its name from the three prominent yellow keels (lines) seen on its brownish-black carapace. The yellow plastron distinguishes it easily from similar appearing Indian Black Turtle *Melanochelys trijuga* and several other semi-aquatic pond turtles. They have been reported from the foothills of the Himalayan range, from riparian vegetation or grasslands along the rivers Ganga and Bramhaputra

(Das 1991; Choudhury & Bhupathy 1993; Busack 1994; Mitchell & Rhodin 1996; Kumar et al. 2009; Basumatary & Sharma 2013). The species has also been recorded from *Sal Shorea roxburghii* forests of Chaibasa, Jharkhand (Das 1991) from where it was originally described. A few instances were also recorded from Bangladesh which suggests its occupancy at considerable distance from the Himalaya (Khan 1987). Its distribution was confined to the northern parts of the Indian sub-continent (Das 2009) but was also reported from Simlipal Tiger Reserve, as first report of occurrence from northern Odisha (Dutta et al. 2009). The Tricarinate Hill turtle has a small body size



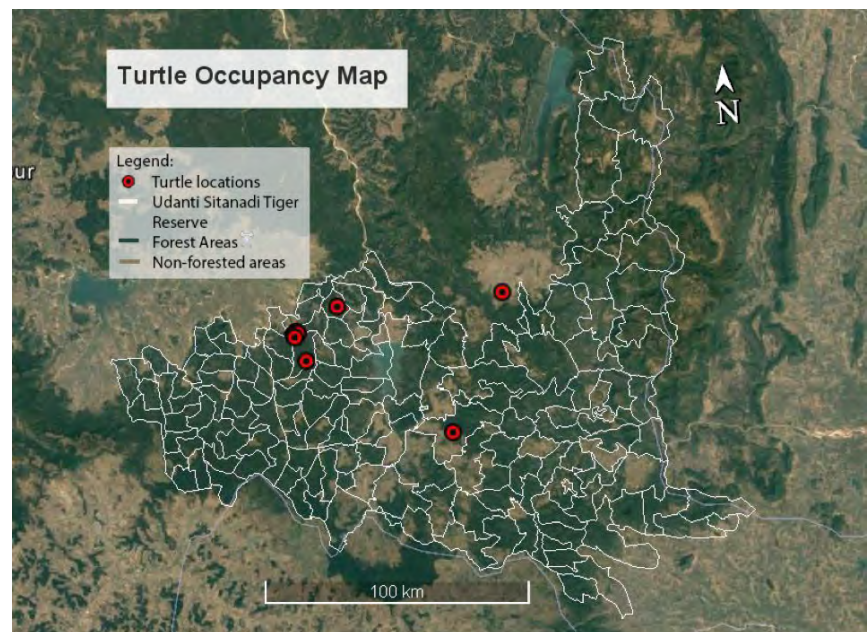
**Location of study area.**

(straight carapace length: 127–175 mm) and a home range of 8,000–15,000 m<sup>2</sup>, with very specific habitat requirements and movement patterns (Mondal et al. 2016).

In November 2019, two individuals were found and after recording observations without disturbing the turtles, they were left in the same condition back at the same spot. Similar

observations were also confirmed by officials of the forest department (Mr. Ganveer Dhammshil IFS, DFO Keshkal, pers. comm.) and from Keshkal Division adjoining the Tiger Reserve. Following this, a series of its occurrences were also confirmed by the team and state forest department and local villagers. These turtles were mostly sighted during the post-monsoon until the advent of summer, i.e., from October till February at 480m above mean sea level and at an average distance of 1.5–2 km from a water source. The turtle was identified as *Melanochelys tricarinata*

Udanti-Sitanadi Tiger Reserve is situated in Chhattisgarh State, and is one of the 50 tiger reserves of India having source population of tigers. The Tiger Reserve spreads over an area of 1842.54km<sup>2</sup> of Gariyaband and Dhamtari districts in Chhattisgarh State. The turtle was first photographed by our tiger monitoring team member on 15 January 2016. Another turtle was again recorded in the winter month of October, 2018.



**Regions where Tricarinate Hill Turtle was observed during the study.**

**Table 1. Individuals and their photographs obtained from different locations in and around Udanti-Sitanadi Tiger Reserve.**

Date of sighting	Range	Beat	Latitude	Longitude
8.x.2017	Arsikanhar	East Lilanj	20.2708 N	82.0526 E
15.i.2018	Arsikanhar	South Gahnasiyar	20.2170 N	82.0136 E
14.xi.2019	Arsikanhar	South Lilanj	20.2423 N	82.0031 E
20.xi.2019	Arsikanhar	South Lilanj	20.2446 N	82.0023 E
21.xi.2019	Arsikanhar	South Lilanj	20.2458 N	82.0017 E
24.xi.2019	Arsikanhar	South Lilanj	20.24797 N	82.0048 E
24.xi.2019	Arsikanhar	South Lilanj	20.2461 N	82.0069 E
28.viii.2020	Tourenaga	Gona	20.13132 N	82.1691 E
19.x.2020	Mainpur Territorial	Mainpur kala	20.2718 N	82.2357 E
30.ix.2020	Keshkal	Mangilgarh	Location unspecified	Location unspecified



**Dorsal & ventral view of captured turtle. © M. Suraj.**

based on its striking three yellow stripes and other morphological characteristics following Hegde et al. (2013) and Dutta et al. (2009).

Two individuals recorded were found 200m apart

during weed eradication conducted by the forest department in south Lilanj beat of Arsikanhar Range in November 2019. The first turtle's straight carapace length was measured 145mm and the another, smaller

in size, 130mm in length. Another two instances were recorded, one from Tourenaga Range of the Tiger Reserve and the other from Mainpur Range that is outside the Tiger Reserve. The vegetation of the site was predominantly Sal-mix forest with species like Sal *Shorea roxburghii*, Char *Buchanania cochinchinensis*, Saja *Terminalia tomentosa*, Tendu *Diospyros melanoxylon*, Amla *Phyllanthus embilica*, and Bija *Pterocarpus marsupium*.

While interviewing the resident villagers, it was understood that these turtles are mostly sighted during



weed-eradication conducted by the forest department, after the end of monsoons every year. As per them, the turtle produces a hissing sound when approached and because of this, the turtle was assumed to be venomous (snake).

Anecdotal record or less information is available for Tricarinate Hill Turtle from central Indian landscape, and only individual point locations are there from state of Odisha that is too from Eastern Ghats. Our observations confirm that the distribution and range extension of this turtle to the central plains from northern part and Eastern Ghats of the Indian subcontinent. Hence, this is the first record of the Trincarnate Hill Turtle extending its range into Chhattisgarh, India.

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