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Biodiversity Gallery

Photo gallery of hard-shell turtles of Northeast India

(Family: Geoemydidae)

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BRIEF OVERVIEW:

A total of 24 species of turtles and tortoises found in the Northeast India are divided into three families: Geoemydidae (13 species of hard-shell turtles), Trionychidae (8 species of soft-shell turtles), and Testudinidae (3 species of tortoise). Population of each species of

turtle are on the decline because of indiscriminate killing, egg destruction, and habitat degradation. Of the 24 species found in the Eastern Himalayas, six species, namely *Nilssonina nigricans*, *Pelochelys cantorii*, *Batagur dhongoka*, *Pangshura sylhetensis*, *Indotestudo elongata*, and *Manouria emys phayreiare*, are the critically endangered species of Asia.

Photo gallery of hard-shell turtles of Northeast India (Family Geoemydidae; 13 species)

Species	Description	Photographs
<p><i>Pangshura tecta</i> (Gray, 1831):</p>	<p>The Indian roofed turtle is locally known as <i>Futuki Salika Dura</i> in Assam. Females do not exceed about 24 cm in length and the shell is strikingly elevated, the first two vertebral scutes being somewhat keeled and the third rising to a sharp point. This species is common in the northeast India. It is also an inhabitant of temple ponds of Assam. Two clutches of 3-12 eggs are laid during the winter season in sandy or muddy banks of the water bodies.</p> <p>IUCN Red List status (2021): Vulnerable (VU A4d)</p> <p>Distribution in Himalayan Hotspot: India, Nepal, Pakistan</p>	 <p>Photo 1: Indian roofed turtle (Photo Credit: Dr. Jayaditya Purkayastha, Help Earth, Guwahati)</p>

***Pangshura tentoria* (Gray, 1834):**

It is locally known as *Tambu Dura* in Assam. The Indian Tent Turtle is a slithering reptile with shells that resemble tents and a keel with a hump-like protrusion. The length of the species' straight carapace is 26.5 cm. There are three subspecies: *tentoria* (Gray, 1834), *circumdata* (Mertens, 1969) and *flaviventer* (Gunther, 1864). In Assam, both *P. tentoria tentoria* and *P. tentoria flaviventer* are found. It can be found in the river systems of the Brahmaputra and Barak. This species is the most common incidental catch in the river Brahmaputra. They spawn on the sandy riverine chars between September and November. It has been reported to breed on mud banks in ponds and marshes. By excavating a 30-centimeter-wide hole, a clutch of 3 to 8 eggs is laid. The duration of incubation is 56 to 60 days. The eggs are consumed by humans and other predators as dogs and jackals.

UCN Red List status (2021): Least Concern (LC)

Distribution in Himalayan Hotspot: India, Nepal



Photo 2 A: *Pangshurta tentoria tentoria* (The Indian Tent Turtle) (Photo by Dr. Chittaranjan Baruah)



Photo 2 B: *Pangshura tentoria flaviventer* (The Indian Tent Turtle) (Photo by Dr. Chittaranjan Baruah)

<p><i>Pangshura smithii</i> (Gray, 1863):</p>	<p>The brown roofed turtle is locally known as <i>Muga Dura</i> in Assam. The females may reach a length of 22.7 cm and the males are just 10.8 cm in the carapace length. The species occupies an elongate, narrow band of territory in the northern and northeaster parts of the Indian subcontinent. It is a common species in the river Brahmaputra in Assam. The species communally bask on the riverbanks. It lays 6-12 eggs per clutch.</p> <p>The two recognised subspecies are <i>P. smithii smithii</i> and <i>P. smithii pallidipes</i>. <i>Pangshura smithii pallidipes</i> has been discovered in Uttar Pradesh and Bihar, while <i>P. smithii smithii</i> has been discovered in Brahmaputra and Gangra River systems.</p> <p>IUCN Red List status (2021): Near Threatened (NT A4d)</p> <p>Distribution in Himalayan Hotspot: India, Nepal, Pakistan</p>	 <p>Photo 3. <i>Pangshura smithii smithii</i> (The brown roofed turtle) (Photo by Dr. Chittaranjan Baruah)</p>
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***Pangshura sylhetensis* (Jerdon, 1870):**

The Assam roofed turtle is locally known as *Asomi Dura* and *Phulen Dura* in Assam. It is a small (carapace length to 20.5 cm) freshwater turtle with thirteen pairs of marginal scutes. The head is moderately small, snout pointed, shorter than the orbit and projecting much beyond the lower jaw. It has narrowest distribution range compared to other three *Pangshura* species. It lays 6-12 eggs each clutch, with hatchlings visible primarily between March and April, around the start of the Southeast Monsoons.

IUCN Red List status (2021): Critically Endangered (A2cd +4cd)

Distribution in Himalayan Hotspot: Bangladesh, India, Bhutan (?). Localized distributed in northeast India and north-eastern and south-eastern Bangladesh.



Photo 4. *Pangshura sylhetensis* (The Assam roofed turtle) (Photo by Dr. Chittaranjan Baruah)

<p><i>Batagur dhongoka</i> (Gray, 1834):</p>	<p>It is locally known as <i>Tinipatia Dura</i> in Assam. <i>Batagur dhongoka</i>, the three-striped roofed turtle attains a length of 48 cm and has a modest vertebral keel, which reaches its highest development on the second and the third vertebral scutes. The species has been reported from Assam. Carapaces of the dead individuals have been observed in Kaziranga National Park and Chandubi beel areas of Assam. Clutch size is 20 to 35 eggs, which are laid in March to April, along the edges of the rivers or in midriver sandbanks. The species is mostly herbivorous in nature.</p> <p>IUCN Red List status (2021): Critically Endangered (A2cd +4cd)</p> <p>Distribution in Himalayan Hotspot: India, Nepal</p>	 <p>Photo 5. <i>Batagur dhongoka</i> (The three-striped roofed turtle) (Photo: Pradeep Saxena)</p>
<p><i>Cuora amboinensis</i> (Daudin, 1802):</p>	<p>The Southeast Asian Box Turtle, <i>Cuora amboinensis</i> is locally known as Jap Dura in Assam. It is a small (carapace length to 25 cm), semi-aquatic turtle. It is distributed throughout northeast India and other parts of Southeast Asia. The species is very common in most of its ranges, perhaps due to its ability to adapt to a variety of habitats. It inhabits in rivers, lakes, marshes, ponds, channels, creeks, swamps and paddy fields in and around lowland forests. This</p>	

	<p>species exists in Manas National Park, Orang National Park, Kaziranga National Park and Deihing Patkai Wildlife Sanctuary. The species lays 1-4 eggs per clutch. Diet includes both plant and animal matters.</p> <p>IUCN Red List status (2021): Endangered (A2d)</p> <p>Distribution in Himalayan Hotspot: India, through most of mainland Southeast Asia</p> <p>Sub-species found in Himalan Hot spot:</p> <p>(i) <i>Cuora amboinensis kamaroma</i> (Rummler and Fritz, 1991): Distribution: Bhutan, India and Myanmar</p> <p>(ii) <i>Cuora amboinensis lineata</i> (McCord and Philippen, 1998): Distribution: Myanmar</p>	<p>Photo 6: The Southeast Asian Box Turtle (Photo Credit: Dr. Jayaditya Purkayastha, Help Earth, Guwahati,)</p>
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<p><i>Cuora mouhotii</i> (Gray, 1862):</p>	<p>It is locally known as <i>Siria Jap Dura</i> in Assam. The keeled box turtle is an endemic Asian turtle. The carapace is elongated and does not exceed 18 cm. It is distributed throughout northeast India. The species inhabits in evergreen, semi-evergreen and subtropical broadleaf forests. It lays from one to nine elongated eggs every clutch, with egg measurements of around 41 x 26 mm. The incubation time ranges from 82 and 120 days. It is an omnivore.</p> <p>Subspecies: Mouhot's Keeled Box Turtle (<i>C. mouhotii mouhotii</i>) (synonym: <i>Pyxidea mouhotii mouhotii</i>) and Obst's Keeled Box Turtle (<i>C. mouhotii obsti</i>) are the two species now recognised.</p> <p>Distribution in Himalayan Hotspot: Bhutan, China, India, Myanmar.</p> <p>IUCN Red List status (2021): Endangered (A2cd)</p>	 <p>Photo 7. <i>Cuora mouhotii</i> (The keeled box turtle) (Photo by Dr. Chittaranjan Baruah)</p>
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Melanochelys trijuga
(Schweigger, 1812):

Melanochelys trijuga is locally known as Kola Sil Dura. It is commonly known as the Indian black turtle. It is a medium sized (carapace length to 38.3 cm) forest dwelling species living in dry deciduous, moist deciduous and semi evergreen forests near water bodies or swampy grasslands. It has been observed in Assam and Meghalaya. Breeding takes place during the monsoon season and egg laying is observed during October to November. A clutch of 8-16 elongated eggs is usually recorded from a female of carapace length 33 cm in captivity. It is omnivorous in dietary habits.

Distribution in Himalayan Hotspot: India, Myanmar, Nepal

IUCN Red List status (2021): Least Concern

Sub species found in Eastern Himalayas:

Melanochelys trijuga indopeninsularis

(Annandale, 1913)

Distribution in Himalayan Hotspot: India, Nepal



Photo 8. *Melanochelys trijuga* (Indian black turtle) (Photo: Pradeep Saxena)

Melanochelys tricarinata
(Blyth, 1856):

Melanochelys tricarinata is popularly known as the tricarinate hill turtle. It is locally known as *Bamuni Dura* in Assam. It is a small (carapace length up to 17.4 cm), entirely terrestrial turtle from the deciduous and evergreen forests and riverine grasslands. The species has been from Manas National Park, Kaziranga National Park, Rajiv Gandhi Orang National Park, Burachapari Wildlife Sanctuary and forest areas of Kamrup district. It is mostly active during nighttime; captive individuals feed on vegetables, wild fruits, different species of snails and crabs. It is reported that 3 to 6 eggs are laid by the females in a single clutch and the incubation period is 60-72 days. Hatching takes place during April to May. Nesting occurs during winter months in Assam.

Distribution in Himalayan Hotspot: India, Nepal, Bhutan.

IUCN Red List status (2021): Endangered A4cd



Photo 9. *Melanochelys tricarinata* (The tricarinate hill turtle) (Photo by Dr. Chittaranjan Baruah)

<p><i>Cyclemys gemeli</i> (Gray, 1831):</p>	<p>The Assam leaf turtle is locally known as <i>Sepeta Dura</i> in Assamese. This is a moderate-sized species (carapace length to 24 cm), with flat and oblong carapace. It is a common species in Assam and Arunachal Pradesh. It inhabits in streams, rivers and pools at lower hills. It is an omnivorous species. It nests four to six times per year, producing 2-4 elongate eggs each time.</p> <p>Distribution in Himalayan Hotspot: Bhutan, India, Myanmar, Nepal</p> <p>IUCN Red List status (2021): Near Threatened (A4c)</p>	 <p>Photo 10: The Assam leaf turtle (Photo Credit: Dr. Jayaditya Purkayastha, Help Earth, Guwahati,)</p>
<p><i>Geoclemys hamiltonii</i> (Gray, 1831):</p>	<p><i>Geoclemys hamiltonii</i>, commonly known as the spotted pond turtle is locally known as <i>Nal Dura</i> and <i>Futuki Dura</i> in Assam. It is a medium sized (carapace length to 40.5 cm) freshwater turtle from lentic waterbodies of the northern and the northeastern India. The species is observed in Assam and Meghalaya. Significant population exists in Kaziranga, Orang and Dibru Saikhowa National Parks in Assam. It lays two clutches of 18-30 eggs that hatch within 60-76 days. The species is primarily carnivorous, feeding on snails and insect larvae along with vegetative material.</p>	 <p>Photo 11. <i>Geoclemys hamiltonii</i> (The spotted pond turtle) (Photo by Dr. Chittaranjan Baruah)</p>

	<p>Distribution in Himalayan Hotspot: Pakistan, India, Nepal.</p> <p>IUCN Red List status (2021): Endangered (A2cd +4cd)</p>	
<p><i>Hardella thurjii</i> (Gray, 1831):</p>	<p>The crowned river turtle, locally known as <i>Bor Dura</i> in Assam, is a large (carapace length to 65 cm) freshwater turtle, largely confined to lentic waters. It has been reported from Assam, Meghalaya and Arunachal Pradesh. It has been observed in the Kaziranga National Park of Assam. It lays 8-19 ellipsoidal eggs per clutch. The species is herbivorous in nature.</p> <p>Distribution in Himalayan Hotspot: India, Myanmar? Nepal, Pakistan.</p> <p>IUCN Red List status (2021): Endangered (A2bcd +4bcd)</p>	 <p>Photo 12. <i>Hardella thurjii</i> (The The crowned river turtle) (Photo: Pradeep Saxena)</p>

***Morenia Petersi* (Anderson, 1879):**

The Indian eyed turtle (*Morenia petersi*) is locally known as *Bangla Dura* in Assam. It is a small freshwater turtle (carapace length to 22.2 cm) with fairly restricted distribution in northern, eastern and northeastern India, southern Nepal and Bangladesh. It inhabits both in standing and slow-moving water bodies. There are three records from the protected areas of Assam, viz., Deepor Beel Ramsar Site, Kaziranga National Park and Pobitora Wildlife Sanctuary. It has been further observed in the Orang National Park in Assam. It is exclusively herbivorous in the wild, with jaw surfaces highly specialized for folivory habit. It lays a single clutch of 6-10 elongated eggs during winter.

Distribution in Himalayan Hotspot: India, Nepal.

IUCN Red List status (2021): Endangered (A2cd + 4cd)



Photo 13. *Morenia Petersi* (The Indian eyed turtle) (Photo: Pradeep Saxena)