Chapter 03

Endemic Turtles of India

[1]V. Deepak and [2]Karthikeyan Vasudevan
Wildlife Institute of India, P.O. Box 18, Dehradun - 248001, India
E-mail: deepaksalea@gmail.com, karthik@wii.gov.in

Nilssonia leithii, Gray, 1872

Taxonomy

Synonymy. – Trionyx leithii Gray, 1872, *Aspideretes leithii* Meylan, 1987, *Nilssonia leithii* Praschag *et al*, 2007.

Nilssonia leithii was first described by Gray, 1872 as *Trionyx leithii* based on specimens collected by Dr. Leithi from Poonah Maharashtra. Meylan (1987) studied phylogeny of softshell turtles, based on osteological characters divided the family Trionychidae into two subfamilies Cyclanorbinae and Trionychinae and placed *N. leithii* in tribe Aspideretini and proposed the new genus name *Aspideretes*, Hay (1904) which included *A. gangeticus*, *A. hurum*, *A. nigricans* and *A. leithii*. He also placed another closely related genus *Nilssonia*, Gray (1869) in the tribe Aspideretini. Praschag *et al* (2007) based on molecular phylogeny studies found a well supported clade containing *Aspideretes* with the above mentioned four species and *Nilssonia formosa*. Considering priority as senior synonym, genus *Aspideretes*, Hay (1904) was synonymised to *Nilssonia*, Gray (1869) (Praschag *et al.*, 2007).

Vernacular names

Tamil: Parisal amai (Locally made round boat made of split bamboo and buffalo hide), Seravi amai (Seravi= common teal, because the turtles have a webbed foot like the common teal), Thoni amai (boat turtle). Kannada: Pale poo (Pale = leaf spath of areca nut palm). Telugu: Nadi tabelu (river turtle).

Description

Adults. –Nilssonia leithii has a low carapace and is oval in shape (Plate 3.1 A). A preneural with one or two neurals separate the first pair of pleurals, eighth pair of pleurals meets at midline of carapace. Eight or nine neurals are present. Plastral callosities are large and are five in number. Triturating surfaces of maxilla flat with a prominent median groove. A patch of wart-like tubercles present on the anterior edge of carapace and along midline posterior to the bony portion of the shell. Disk dark olive-green above with lighter vermiculations (Plate 3.1 A). Head greenish with a more or less defined black longitudinal streak from between the eyes on to the nape and two or three oblique black streaks diverging from it on either side, another streak starting behind the eye (Plate 3.1 C). These markings may be broken up and not only portions of them present. The corner of the mouth has a yellow or reddish-orange spot and patches of dark reddish-grey are present on the hind part of the head (Plate 3.1 D). Plastron cream coloured (Plate 3.1 B). The outer surface of the limb is olive and the inner surface cream coloured. Snout longer than the diameter of the orbit. Post-orbital arch one-half to one-third the diameter of the orbit. Alveolar surfaces of mandible not raised at its inner margin, more or less flat at the symphysis, which is usually longer than the diameter of the orbit (Gray, 1872; Boulenger, 1890; Smith, 1931; Das, 1991).

A sexually dimorphic species with males having longer and thicker tail than females (Das, 1991). A pair of them measured with similar body size, the male with 442 mm SCL had a tail length of 118.4mm and the female measuring 440 mm in SCL had a tail length of 64.6 mm (Deepak and Vasudevan, Unpubl). Males measured between 442-635 mm (n = 4) in straight carapace length (SCL) and females measured were 358-548mm in SCL (n = 3). The Males weight ranged between 6.6 – 26 kg (n = 4) and females weighed ranged 4.4-14.5 kg (n = 3) (data compiled from Moll and Vijaya, 1986; Deepak and Vasudevan, Unpubl).

Hatchlings. – Hatchlings are more grey or greyish olive with yellow vermiculations and marked with four to six well defined ocelli which are black surrounded by red, with a black outer border. Head greenish with black streaks extends towards the side of the head and another that extends backwards from the eye. The corner of the

mouth has a yellow or reddish orange spot and patches of the same colour are present on the forehead (Plate 3.1 E).

Distribution

Endemic to peninsular India, *N. leithii* has been reported from major rivers from peninsular India (Plate 3.1 F); Cauvery and Vaigai from Tamil Nadu, Krishna and Godavari from Andhra Pradesh, Neethravathi from Karnataka, Chalakudy, Bharathapuzha and Chaliyar in Kerala, Pawna in Maharashtra and Godavari in Orissa (Gray, 1872; Boulenger, 1890; Moll and Vijaya, 1986; Kalaiarasan *et al.*, 1992; Thomas *et al.*, 1997; Kumar, 2004; Vasudevan *et al.*, 2006; Nameer *et al.*, 2007; Praschag, *et al.*, 2007; Deepak and Vasudevan, Unpubl; Whittaker *pers comm*). Juvenile specimens of *N. gangetica* from the river ganges and Hadso, Mahanadhi was possibly misidentified by Annandale (1912 a and b) as *N. leithii* (Moll and Vijaya, 1986; Peter Praschag *pers comm.*). Smith's (1931) assessment of its range as river Ganges was again *following* Annandale (1912 a and b). Annandale (1915) himself states that all records of *N. leithii* specimens are from the Peninsular India. The present distribution range of the species includes Pawna (Maharashtra) as Northern and North-Western limit of the species; Balimela reservoir, Godavari in Orissa is the North-eastern distribution limit and Chalakudy River in Kerala is the southern most distribution of the species known so far (Plate 3.1 F).

Habitat and Ecology

Nilssonia leithii inhabits rivers and reservoirs (Boulenger, 1890; Annandale, 1915; Moll and Vijaya, 1986; Kalaiarasan *et al.*, 1992; Thomas *et al.*, 1997; Kumar, 2004; Vasudevan *et al.*, 2006; Nameer *et al.*, 2007; Praschag, *et al.*, 2007; Deepak and Vasudevan, pers obs.). They are reported from shallow waters with substrates varying from sand to granite boulders (Thomas *et al.*, 1997; Nameer *et al.*, 2007). They are reported to feed on fish, crabs, freshwater molluscs and mosquito larvae (Biswas and Acharjyo, 1984; Das, 1995; Deepak and Vasudevan, per s obs.). Nesting occurs in mid-June and possibly also in January, eggs measuring 30-31mm are laid (Das, 1991).

Threats

In most of its range, the species is hunted and consumed (Kalaiarasan *et al.*, 1992; Kumar, 2004). Kumar (2004) noted its supply to local markets and toddy shops in Kerala for ' 100 to ' 300 depending on the size. Distribution range reduced due to river alteration and other habitat impact (IUCN, 2008).

Captive Husbandry

Nandankanan Zoological Park, Cuttack had two individuals of *Nilssonia leithii* which lived for two years in fish diet (Biswas and Acharjyo, 1984) there are no reported breeding populations of the species existing in the country.

Conservation measures taken

Nilssonia leithii is listed as 'vulnerable' (A1c) in the IUCN red list (IUCN, 2008; Year assessed 2000). It is also listed in Appendix II of CITES the threat due to trade on the species requires further verification in India, it is protected under schedule IV of the Indian Wildlife (Protection) Act (1972).

***Vijayachelys silvatica*, Henderson, 1912**

Taxonomy

Synonymy. – *Geoemyda silvatica* Henderson, 1912, *Heosemys silvatica* McDowell, 1964
Vijayachelys silvatica Praschag *et al.*, 2006.

Henderson in 1912 described the species based on two specimens collected from Chalakudy forest, Kerala and placed them under the genus *Geoemyda* Gray, 1834. In those days the genus *Geoemyda* included variety of semi terrestrial and or terrestrial turtles from Oriental and Neotropical regions. McDowell (1964) reorganized the Emydidae largely on the basis of cranial anatomy and partitioned the genus *Geoemyda* -into *Heosemys*, *Melanochelys*, *Rhinoclemmys* and *Geoemyda*. McDowell (1964) included *silvatica* in the genus *Heosemys*, Stejneger,

1902 without studying any forest cane turtles. Moll *et al* (1986) based on osteological characters compared *Geoemyda spengleri, Heosemys grandis and Heosemys spinosa* and proposed to transfer *H. silvatica* back to its original genus *Geoemyda*. However, this was not generally accepted, and some authors e. g. Ernst and Barbour (1989) and Ernst *et al* (2000), continued using the combination *H. silvatica*. Praschag *et al* (2006) based on phylogenetic distinctness proposed an all new Genus *Vijayachelys* (named in honour of the late Indian herpetologist Jaganath Vijaya) which includes only *Vijayachelys silvatica* (a monotypic genus).

Vernacular names

Tamil: Vengala amai (= brass turtle), Malayalam: Churrel amai (= cane turtle), Kannada: Bettadh/Bettada amae (= rock turtle), Thulu: Kunde amae (= small turtle) Kadar: Sengani amai (= plum turtle), Kanis: Ayani ilaiyan amai (Fallen leaf turtle), Sengkannan (= red-eyed turtle), Mootal amai (= roof turtle).

Description

Adults. – *Vijayachelys silvatica* has a low carapace with three prominent keels (Plate 3.2 C). The carapacial keels are prominent in all but the oldest individuals and the central one is the most pronounced. The carapace varies from cinnamon to tawny or raw umber in females with dark brown stripe along the central keel and males with much darker than females varying from burnt umber to dusky brown. Plastron varies from buff to buff yellow in females and are straw to sulfur yellow in males. Maxillae form a distinct median hook, labial ridge slightly serrated irregularly. Nuchal scute well developed. The forelimbs are heavily armoured anteriorly with enlarged, imbricate, squarish to pentagonal shaped scales extending into the toes and soles of feet. On hind limbs enlarged scales are confined to the posterior medial surface except for the feet where they cover the entire surface. A large pointed scale is present on each heel (Henderson, 1912; Smith, 1931; Moll *et al.*, 1986; Praschag *et al.*, 2006).

A sexually dichromatic species with males having darker and brighter pink markings on the head compared to females and the iris is usually flame scarlet surrounded a scarlet sclera (Plate 3.2 A). The mandible is yellow to orange yellow and considerably brighter than that of females. Typical head colouration of females ranges from clay to cinnamon rufous; some old females also have light brick red. The iris is amber to chrome orange and is surrounded by a scarlet to flame scarlet sclera (Plate 3.2 B). Females poses a dull geranium pink coloured post ocular stripe but are not present in some. The mandibles are a dull buff which may be washed with red. The plastron tends to be buff to buff yellow (Moll *et al.*, 1986). In addition to the striking colour differences they are also sexually dimorphic; the males have a concave plastron, which are flat in females. A second dimorphic feature is the tail which is more elongated and thicker at the base in males. The length of the tail proximal to the cloacal opening exceeds the portion distal to it. In case of females the proximal portion is shorter. The third dimorphic feature is that the females are longer than males in SCL (Moll *et al.*, 1986; Deepak and Vasudevan, Unpubl) Males measured between 100-126 mm (n=24) in straight carapace length (SCL) and females measured were 114-139mm in SCL (n=18). The Males weight ranged between – 125-230 g (n=16) and females weighed ranged 200-340 gm (n=10) (data compiled from Moll and Vijaya, 1986; Deepak and Vasudevan, Unpubl).

Hatchlings. – Hatchlings are chiefly light brown. The carapace varies from cinnamon to clay and except for a somewhat lighter stripe along the central keel, is unicoloured. Head and neck is similar to that of shell but with orange markings. The iris is clay coloured surrounded by an orange sclera and eyelid (Plate 3.2 C). The plastron varies from buff yellow to cream (Moll *et al.*, 1986).

Distribution

The cane turtle is endemic to Western Ghats (Plate 3.2 D). Recently they are sighted from many different localities: Chalakudy, Poyankutti, Kulathupuzha and Nadukani reserve forests; Peechi-Vazhanai, Neyyar, Peppara, Idukki and Aralam Wildlife Sanctuaries; Parambikulam Tiger Reserve in Kerala. Anamalai Tiger Reserve (formerly Indira Gandhi Wildlife Sanctuary) and Kodayar in Tamil Nadu. Mookambika Wildlife Sanctuary, Sharavathi, Kathlaekan, Agumbe and Neria forest divisions in Karnataka (Vijaya, 1982; Sharath,

1990; Das, 1995; Daniels, 2001; Easa and Ramachandran, 2004; Jose *et al.*, 2007; Jaffer Palot *pers comm.*; T. V. Ramachandran *pers comm.*; Gururaja *pers comm*; S. Bhupathy *pers comm.*).

Habitat and ecology

Vijayachelys silvatica are found in evergreen and semi evergreen forests of Western Ghats (Vijaya, 1982; Moll *et al.*, 1986; Deepak and Vasudevan unpubl). Vijaya's observation on cane turtles non affinity towards water bodies (Moll *et al.*, 1986) were found to be true, even during the drier months of the year the turtles never went near streams (Deepak and Vasudevan unpubl). Vijaya reports that they found more cane turtles in areas with considerable undergrowth of herbaceous plants around one to two feet tall, they were either concealed beneath the plants or amidst the leaf litter (Moll *et al.*, 1986). In 620 tracking days between July and March 2009, six turtles attached with radio-transmitter (3 male and 3 females) were found 61% of the time burried under leaf litter, 14% under liana, roots or tree buttress or fallen log, 13% in the open, 6% walking or mating or feeding, 5% inside tree hole or termite hill burrow. They are omnivorous feeding on fruits, leaves, molluscs, beetles, earthworms and millipedes. They are active predators searching for prey under leaf litter and use vantage points (fallen logs) to scan for food. However they also feed on small fallen fruits (*Diospyros buxifolia*) (Moll *et al.*, 1986; Deepak *et al.*, 2009).

Activity. –Radio-tagged turtles were more active during rainy days (47%) compared to non rainy days (23%) (n = 1351 tracking days). Cane turtles seize their activity (aestivates/hibernates) under leaf litter during December to February which are winter months and March to Mid may which is summer. Female # 5 was recorded from under leaf litter in one single locality for 46 days from 24th December to 7th May, 2008. A total of 54.08 hours (males - 30.37; females – 23.65) the turtles were observed. Based on these an ethogram consisting of 7 states (alert, sleeping, walking, scanning, starring, feeding and inactive) and 10 events (Yawning, wiping face, blinking, nosing, stretching limbs, penetrating litter, biting, head jerk, climbing and adjusting head) were observed in *Vijayachelys silvatica* (Smart, 2008).

Home range. –Home range of this species based on 620 days of radio-tracking of six turtles was 5-9 ha. The minimum and maximum distances moved in a day were 0.5 m and 266 m respectively.

Diet. – *Vijayachelys silvatica* are omnivorous and reported to feed on fruits, leaves, molluscs, beetles and millipedes (Moll *et al.*, 1986; Deepak *et al.*, 2009). Thirteen fecal samples collected from eleven individuals were examined. All feacal samples contained at least one identifiable prey item. Based on the occurrence of different food material in the faeces, 85% had insects and plant matter; 77% had sand; 69% had mollusc remains; 38% had millipede remains and 15% had seeds. *Vijayachelys silvatica* were observed feeding on the endemic snail *Indrella ampula* on four different occasions. It was also observed feeding on earthworms and fallen fruits (*Diospyros buxifolia*) (Deepak *et al.*, 2009).

Courtship and nesting. –Mating occurs during the start of south west monsoon, during the month of July and August in the Anamalai hills (Deepak and Vasudevan, Unpubl obs..). Four observations were made on mounting and copulation, males usually extends their head out and eyes forward and looks at the female while mounting (Deepak and Vasudevan, Unpubl obs..). Aggressive interactions between male cane turtles was reported from captive individuals (Moll *et al.*,1986) and in the wild (Deepak and Vasudevan, Unpubl obs..). One single captive observation of the cane turtle laying egg was during the month of December, the female was collected from Chalakudy, Kerala . Eggs were laid in a small depression on the ground covered with leaf litter (Moll *et al.*, 1986). The clutch size of two eggs measured 44 x 22.5 mm and 45 x 23.5 mm. A week old hatching was found in Kanyakumari during the month of December (Daniels, 2001)

Population status. – The cane turtle were considered rare (Henderson, 1912; Groombridge *et al.*, 1983; Anonymous, 1983). The species is so well camouflaged that their detection probability is low, which the early workers construed to be rare. Recent findings on the cane turtle unveils that they are common in the mid elevation

evergreen forest in Anamalai hill ranges. In the ongoing study thirty five individuals of cane turtles (23males, 9 females and 3 juveniles) were found within 1 km^2 area in evergreen forests over a span of three years. These figures may easily misconstrue to large population size, however these populations have certain constrains like extent of rainforest in elevations below 800m and non flooding areas within these available habitats.

Threats.

Hunting of cane turtles using dogs by native people (Kadar tribe) for consumption is reported from Chalakudy, Kerala (Vijaya, 1982). Habitat fragmentation is a well-documented scenario in Western Ghats (Nair, 1991) which eventually fragments the turtle's population. There are 24 operational and 12 proposed hydroelectric projects to be implemented in the state of Kerala alone, which would severely impact the biodiversity of this region (Sreekumar and Balakrishnan, 1998; Nikhil Raj *et al.* pers. Comm.). Submerging large tracts of forest for Dams can be an immediate threat to the species and their habitat.

Captive husbandry

The centre for herpetology, madras crocodile bank trust had few captive individuals of this species. Some observations on this captive group were published in the past (Anonymous, 1983; Moll *et al.*, 1986).

Conservation Measures Taken

Vijayachelys silvatica is protected under Schedule I of Indian Wildlife (Protection) Act of 1972. IUCN 2008 Red List: Endangered B1+2c.

***Indotestudo travancorica*, Boulenger, 1907**

Taxonomy

Synonymy.– Testudo travancorica Boulenger, 1907, *Testudo (Indotestudo) travancorica* Williams, 1952, *Geochelone (Indotestudo) travancorica* Loveridge and Williams, 1957, *Indotestudo travancorica* Bour, 1980, *Indotestudo forstenii* Hoogmoed and Crumly, 1984, *Indotestudo travancorica* Pritchard, 2000.

Indotestudo travancorica was described by Boulenger (1907) as *Testudo travancorica* based on specimens collected by Ferguson, who believed it to be common in the Travancore Hills of Kerala, southwestern India. Boulenger noted that it bore resemblance to both *Testudo elongata*, from the northern and eastern parts of the Indian subcontinent, and *T. forstenii* [*sic*] from Celebes (now Sulawesi, Indonesia) and the neighbouring Gilolo Island (now Halmahera Island, Maluku, Indonesia). Smith (1931) also considered *T. travancorica* as very closely allied to *T. elongata*. Lindholm (1929) first recognized *T. elongata* as a distinct species and assigned it to the subgenus *Indotestudo* (under *Testudo*). While he did not mention the placement of the other two valid names, Williams (1952) included *travancorica* and *forstenii* in this subgenus. Subsequently, Williams partitioned the all-encompassing tortoise genus *Testudo*, by placing three tortoise species in the subgenus *Indotestudo*, which in turn was placed under the genus *Geochelone* (Williams in Loveridge and Williams, 1957). Bour (1980) elevated *Indotestudo* to a distinct genus, this was supported by cladistic analyses by Crumly (1982, 1984). Pritchard (1979: 319) suspected that tortoises from India could have been introduced into Indonesia, giving rise to disjunctive populations. When Hoogmoed and Crumly (1984) examined specimens of the three species of *Indotestudo*, they were unable to distinguish *I. forstenii* from *I. travancorica*. And therefore, *I. travancorica* was merged with *I. forstenii*, with the latter species name taking priority. Since then, the species name *I. forstenii* is associated with many reports of *I. travancorica* (eg: Frazier, 1989; Das, 1991, 1995; Sharath, 1990; Bhupathy and Choudhury, 1995; Radhakrishnan, 1998). Pritchard (2000) after examining specimens of *Indotestudo* from different regions suggested that *I. travancorica* be resurrected as a separate species because it was morphologically distinct from *I. forstenii* and *I. elongata*. Phylogenetic evidence supported the recognition of three distinct species, and also revealed that *I. travancorica* was more closely related to *I. elongata* than to *I. forstenii* (Iverson, *et al.*, 2001).

Vernacular names

Tamil: Periya amai (big tortoise), Kal amai (stone tortoise), Kadas: Vengala amai (brass tortoise). Kannada: Betta aame (Forest tortoise), Gudde aame (hill tortoise), Kadu aame (Forest tortoise). Malayalam: Churrel aama (cane tortoise).

Description

Adults. – *Indotestudo travancorica* has an elongated shell, usually flattened at the vertebral region with margins that may be reverted and mildly serrated at the anterior and posterior ends. Carapace and plastron are brown to chocolate brown and may have black blotches; blotches on the vertebrals usually surrounded by a central brown blotch that might fade into the marginals (Plate 3.3 A). Head is cream or yellowish-brown with pinkish-red colouration around the orbital skin and nares. Iris dark brown; upper mandible slightly hooked and tricuspid. Large, uneven, imbricate scales cover anterior part of the forelimbs. Tail ends in claw-like spur (Boulenger, 1907; Das, 1991; Pritchard, 2000). Absence of the nuchal scute (or if present, wedge-shaped), and the interhumeral seam that is 1-1.4 times the length of the interpectoral seam, differentiate it from its congeners *I. elongata* and *I. forstenii* (Pritchard, 2000).

A sexually dimorphic species, the abdominal region of the plastron is concave in males and flat in females while the tail claw is longer and hooked in males, small and conical in females (Vijaya, 1983; Auffenberg, 1964b; Das, 1991). There is no significant size difference between the sexes (Ramesh, 2008a). Their straight carapace length ranges from 55 mm to 330 mm, and they weigh between 35 g to 4010 g (Sane and Sane, 1989; Appukuttan, 1991; Das, 1995; Bhupathy and Choudhury, 1995; Ramesh, 2008a; Deepak and Vasudevan, unpubl.).

Hatchlings. – Hatchlings are usually uniformly brown though in a few, carapace or plastron may be mottled with darker spots (Plate 3.3 B). The shell is rubbery to touch, especially the plastron. The carapace appears rounded and anterior, posterior marginals have sharp transparent edges. Age or size at sexual maturity is unknown, but a male having 160mm SCL had a distinctly concave plastron and hooked tail claw (Ramesh, 2008b) indicating probable size of male sexual maturity.

Distribution

Endemic to the Western Ghats of peninsular India, *I. travancorica* has been reported from Kerala, Tamil Nadu and Karnataka states from 100-1000m msl (Plate 3.3 C) (Boulenger, 1907; Smith, 1931; Vijaya, 1983; Das, 1991; Bhupathy and Choudhury, 1995).

Habitat and Ecology

Indotestudo travancorica are found in the evergreen, moist deciduous, bamboo forests and, rubber and teak plantations of the Western Ghats. They frequent marshlands, dry grass openings in the forest and rocky biotopes close to streams (Vijaya, 1983; Bhupathy and Choudhury, 1995; Ramesh, 2008b; Deepak and Vasudevan, unpubl.). While inactive they use leaf litter, ground level cavities in trees, rocks, fallen logs and occasionally, pangolin burrows for shelter (Vijaya, 1983; Bhupathy and Choudhury, 1995). In an ongoing study in the Anamalai Hills of the Western Ghats, out of the 50 individuals recorded, 24 were found near streams and grassy marshes, 15 in forest interiors and 11 in Lantana camara bushes and rocky microhabitats. In 410 tracking days between February and October 2008, three tortoises attached with radio-transmitter (2 male and 2 females) spent about 40% of the time inactive under leaf litter, 25% inside pangolin burrows and termite hills, 15% in Lantana camara-associated scrub, 6% under fallen logs and grass, 5% in rock cavities and bamboo thickets, 3% in the open and 2% in ground level tree hollows (data summarized from 711 tracking days between February 2008 and April 2009). *Indotestudo travancorica* is crepuscular (Vijaya, 1983) and 70% of 23 tortoises were encountered between 1700 and 1830 h (Ramesh, 2008b) in the Anamalai Hills. But in an ongoing radio-telemetry study in the same region, tortoises were found active even during midday.

Home range. – The estimated home range of the species based on 493 days of radio-tracking of four tortoises was 8-12 ha. The minimum and maximum distances moved in a day were 0.8 m and 485 m respectively. Four radio-tracked individuals on an average moved 440m (350-586) in 1 year.

Activity. – Radio-tagged tortoises spent nearly equal proportions in being active and inactive during rainy and non rainy days (n=493 tracking days). However, a few individuals paused their activity during the dry season (February – May) in the Anamalai hills, when they buried themselves under dry leaf litter or inside termite hill burrows. One individual (Male #12) spent 106 days inside termite hill burrow in which the minimum and maximum temperature were 17.9° C and 25.3° C respectively when external temperature were 13.7° C and 31.8° C.

Diet - Tortoises feed on mushrooms, tender bamboo shoots, fallen fruits of *Artocarpus* spp., *Dillenia pentagyna*, *Ficus virens* and leaves of herbaceous plants such as *Synedrella nodiflora*, *Desmodium repandum*, *Senecio scandens*, *Mimosa pudica* and *Veronica buabaumii* (Vijaya, 1983; Ramesh and Parthasarathy, 2006; Deepak and Vasudevan, unpubl. data), apart from animals such as frogs, insects and millipedes (Das, 1991, 1995). Faeces collected from twenty four tortoises contained at least one identifiable diet item. Ninety two percent had grass/bamboo blades, 92% other plant matter (leaves and stems), 83% insect remains, 63% sand, 42% seeds (*Grewia tilaefolia and Dillenia pentagyna*), 38% vertebrate remains (identified as skink scale, mammal hair and vertebral bone) and 13% mollusc, scorpion and crab remains. They also scavenged on carcasses of mammals such as sambar (*Cervus unicolor*)

Courtship and nesting- Courtship consists of the following stages: (i) sex recognition by olfaction (ii) immobilisation of the female by shell-ramming and (iii) mounting and copulation (Auffenberg, 1964b). Male combat, consisting of shell-ramming and biting, also occurs (Das, 1991; Ramesh, 2008a). In adult male tortoises the pink coloration around the eyes and nares intensifies during the breeding season (Auffenberg, 1964a). The breeding season of *I. travancorica* is from November to January (Auffenberg, 1964a). But there are reports of breeding in other months of the year; a gravid free-ranging female was found in October (Moll, 1989) and in February-March, in captivity (Das, 1991). Nesting has not been observed in-situ till date. In captivity, the species excavated small chambers near the roots of trees, shrubs for egg- laying, and the entire process took about 50 minutes. Eggs were 47x38 mm in dimension and weighed 41 g (Ramesh, 2007). In captivity, clutch size varied from 1-5 eggs but is often three (Vijaya, 1983; Sane and Sane, 1989; Das, 1991, Ramesh, 2007); eggs have also been found on the floor of the enclosure (Sane and Sane, 1989) or in leaf litter (Das, 1991) probably due to lack of a suitable nesting substrate. The incubation period varied from 141-149 days in captivity and a hatchling measured 55mm (SCL) and weighed 35 g (Sane and Sane, 1989; Das, 1995).

Predation- I. travancorica are occasionally consumed or gnawed by large carnivores. A large (280 mm SCL), intact shell of the species (carapace and plastron) from the Parambikulam Wildlife Sanctuary, Kerala, had a deep puncture on the costal and scratch marks on the scutes. Similarly another live tortoise (172 mm SCL) had extensive scratch marks and was devoid of a few marginals (Plate 3.3 D); this was probably caused by some large carnivore such as *Panthera tigris*, *P. pardus* or *Cuon alpinus* found in the area.

Population status. – *Indotestudo travancorica* was reported to be a common species in the forests of the Western Ghats (Boulenger, 1907; Henderson, 1912; Vijaya, 1982) but no population estimates are available. Bhupathy and Choudhury (1995), during their surveys found evidences of the tortoise (shell remains) in the tribal hamlets. Encounters of the species from active searches in forests ranged from 6.7 hours per tortoise in Parambikulam Wildlife Sanctuary (from 20 man-hours) and 8.0 hours per tortoise in Indira Gandhi and Peechi-Vazhani Wildlife Sanctuaries (from 16 man hours each). The species might be more abundant in relatively undisturbed habitats. For instance, in a survey conducted in 2002-2003, fifty seven tortoises were captured with a mean search effort of 3.4 hours per tortoise (Ramesh, 2008a). Intensive sampling in a large forested landscape carried out during 2006-2008 in the same area yielded one tortoise in 17.5 hours in monsoon (from 508 man hours), 22.3

hours in summer, winter and post-monsoon (from 401 man hours) suggesting poor detection of the species by the observers or sparse distribution, or both.

Threats

In most of its range, the species is hunted and consumed. Tribes of the Western Ghats such as the *Kadar, Malai Pandaram, Kani, Malasar and Malaimalasar* hunt them using dogs or by following their tracks (Vijaya, 1983; Frazier, 1989; Moll, 1989; Choudhury and Bhupathy, 1993; Deepak and Vasudevan, unpubl). Sometimes, tortoises are also reared as pets till they attain a size suitable for consumption. *Kani* tribals also use charred shell mixed with oil as a cure for external injuries and skin rashes (Bhupathy and Choudhury, 1995). So far this species has not been reported in trade (Choudhury and Bhupathy, 1993). However, subsistence hunting of the species could reduce in their population (Vijaya, 1983; Frazier, 1989; Moll, 1989; Bhupathy and Choudhury, 1995).

Habitat alteration and fragmentation of forest due to hydroelectric reservoirs is known from almost all areas where the tortoise occurs (Bhupathy and Choudhury, 1995). There are 24 operational and 12 proposed hydroelectric projects to be implemented in the state of Kerala alone, which would severely impact the biodiversity of this region (Sreekumar and Balakrishnan, 1998; Nikhil Raj *et al pers comm.*). These projects also bring in settlers, who in turn pose a threat to the species by disturbing the habitat and hunting them.

Conservation measures taken

Indotestudo travancorica is listed as 'vulnerable' (A1cd) in the IUCN red list (IUCN, 2008). though we do not have records of this species in trade, it is also listed in appendix ii of cites, probably because it was earlier considered synonymous with the commercially exploited *I. forstenii* (Jenkins, 1995). the threat due to trade on the species requires further verification.

In India, it is protected under Schedule IV of the Indian Wildlife (Protection) Act (1972). Currently, this species has been reported from 10 Wildlife Sanctuaries, one Tiger Reserve and 5 Reserve Forests in the Western Ghats (Bhupathy and Choudhury 1995).The Western Ghats is a global biodiversity hotspot (Mittermeier *et al.*, 2005) and the conservation of biological diversity has been a priority for the nation. As a result, 56 Protected Areas (PA) have been notified covering 10% of the entire biogeographic region. (Versus India's PA covers 4.71% of total land area). The high proportion of PA cover for the Western Ghats is a reflection of the national level policies towards strengthening of protection of regions with high biological diversity and endemism. There are currently 50 protected areas in the 'Western Ghats Mountains', province 5B (Rodgers and Panwar, 1988) covering an area of 13236.18 Km^2. These PAs are of great significance to Travancore tortoise populations. However, they ensure protection for only 16% of the entire biogeographic unit that has potential habitat for the species. The reserves in this province have a mean area of 224.5 Km^2 with 25% of them <100 km^2. These limitations expose several populations to exploitation and insularization of remnant habitats of the species.

Only one captive breeding population of *I. travancorica* exists in India, at the Centre for Herpetology, Madras Crocodile Bank (Andrews and Whitaker, 1993; Choudhury and Bhupathy, 1993).

Captive Husbandry

The Centre for Herpetology, Madras Crocodile Bank Trust has the only captive breeding group of this species in the country. The group currently consists of four males, 14 females, and six juveniles which are housed in enclosures (Nikhil Whitaker, pers.comm.). Some observations on this captive group have been published over the years (Vijaya, 1983; Das, 1991, Ramesh, 2007).

Discussion

Current Research. – It is expected that the ongoing research project on the ecology of two endemic turtles in the Anamalai Hills by Wildlife Institute of India will provide the much needed information on the ecology of

Vijayachelys silvatica and Indotestudo travancorica from the wild. Studies on the captive Travancore tortoises at the Centre for Herpetology, Madras Crocodile Bank Trust would provide further insights on husbandry and developmental biology of the species. There are no ongoing studies on *Nilssonia leithii*, all information available on the species is based on some locality records and captive specimens. A survey documenting the distribution and status of these three species is currently in progress. Fact sheets for these species have been prepared and enclosed with this article for use by researchers and field managers (Plates 3.4-3.6).

Conservation measures proposed. – Conducting awareness campaign for the native people who consume turtles. Ensuring their population in protected areas by removing dogs from protected areas will be critical for the survival of cane turtle and Travancore tortoise. Regulate fishing during dry periods, when *Nilssonia leithii* is exposed and easy to hunt. Conducting awareness campaign for forest department officials.

Documentation. –Distributions of all the three species are based on compilation from literature. In the wake of rapid fragmentation in Western Ghats there is a need to document *Vijayachelys silvatica* and *Indotestudo travancorica* distribution along Western Ghats. Water pollution, damming rivers, channelization and sand mining are known to affect river turtle populations (Moll and Moll, 2004). *Nilssonia leithii* faces these threats in their known range, so there is a need to document their distribution and study their ecology.

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Plate 3.1

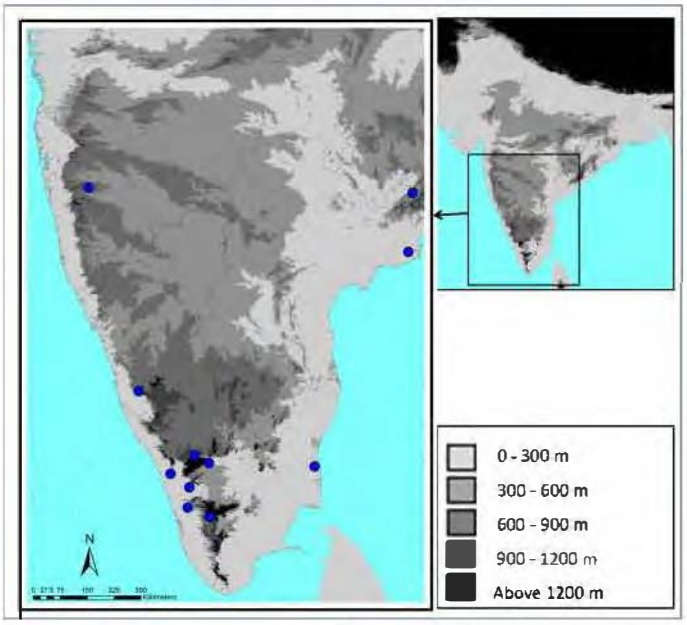
(A)

(B)

(C)

(D)

(E)



(F)

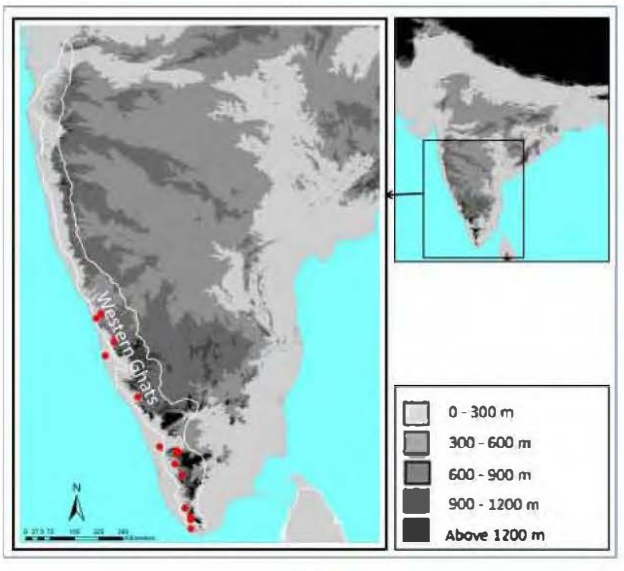
Nilssonia leithii; (A): Carapace with prominent longitudinal streaks; (B): Ventral view showing narrow plastron; (C): Head showing orange spot on the corner of the upper lip; (D): Note-the damaged left lower jaw in the female seized after having been captured using fish hook. Photos (A-D) by V. Deepak; (E): Juvenile showing prominent ocellate markings on the back and less prominent head markings. Photo (E) by K. Vasudevan and (F): Distribution of *Nilssonia leithii* in peninsular India based on literature records.

Plate 3.2

(A)

(B)

(C)



(D)

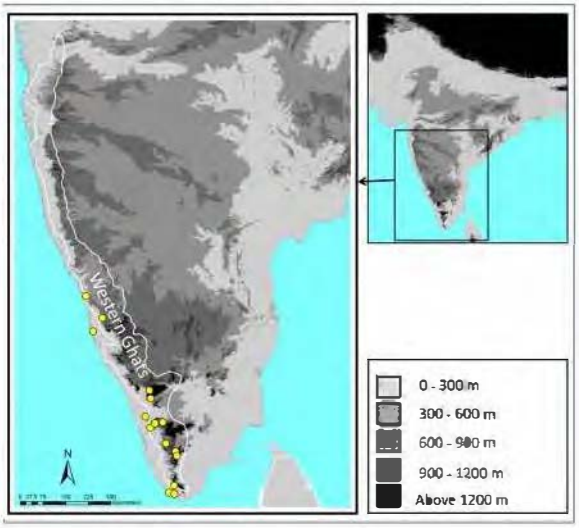
Vijayachelys silvatica; Closeup of head of (A) male and (B) female showing marked difference in eye colour, lower jaw and head colour. Note: Individual males have different colour pattern with combination of bright red, yellow and black; Individual females have different colour patterns but less prominent compared to males; (C): Juvenile female of *Vijayachelys silvatica* without bright colours on the head Photos (A-C) by V. Deepak and (D): Distribution of *Vijayachelys silvatica* in Western Ghats. Note most of the localities fall in the western slopes of Western Ghats in the low and mid elevations (5-900 m ASL)

Plate 3.3

(A)

(B)

(C)



(D)

Indotestudo travancorica; (A) Female (B) Hatchling from the Anamalai Hills, Southern Western Ghats; (C): Hind part of plastron and carapace of *I. travancorica* showing scratch marks by carnivore. Photos (A-C) by V. Deepak and (D): Map of peninsular India with shaded region in grey indicating mountains of the Western Ghats, and the areas shaded in black indicating PAs. The PAs in the states of Kerala, Karnataka and Tamilnadu have populations of Travancore tortoise.

Plate 3.4

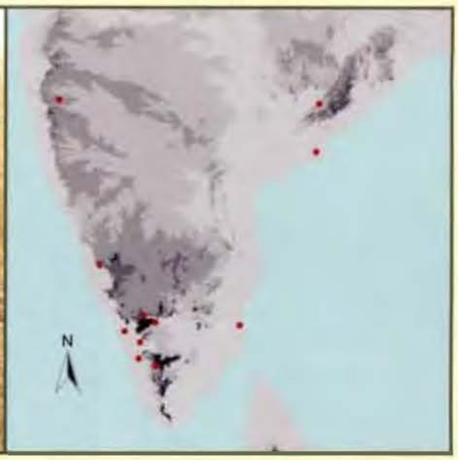
இந்தியாவில் மட்டும் காணப்படும் ஆமைகள்

ഇന്ത്യയിൽ മാത്രം ജീവിക്കുന്ന ആമകൾ

ಭಾರತಕ್ಕೆ ಸೀಮಿತವಾದ ಆಮೆಗಳು

India's Endemic Turtles

Locality records



லீத் தோலாமை (Leith's softshell) ஒரு பெரிய நீர் ஆமை. அது நதிகளிலும், பெரிய நீர்த்தேக்கங்களிலும் காணப்படும். அவை 630 மி. மீ வரை வளரக்கூடிய நீர் வாழ் ஆமை. மீன்கள், நண்டுகள், கொசு புழுக்கள் மற்றும் நீர் வாழ் நத்தைகளை உணவாக உட்கொள்ளும். அவை ஜூன் மாத மத்தியில் கூடு வைக்கும். மொத்த முட்டையின் எண்ணிக்கை தெரியாது. முட்டைகள் 30-31 மி. மீ நீளம் வரை இருக்கும். குட்டிகளின் முதுகோட்டு தோலில் 4-6 கண் போன்ற வடிவங்கள் காணப்படும். பெரிய ஆமைகளின் மேல் உதட்டின் பின்புறம் ஆரஞ்சு நிற புள்ளி வடிவம் இருக்கும். இந்த ஆமை காணப்படும் இடங்களிலெல்லாம் இவை அதிகமாக வேட்டையாடி உணவாக உட்கொள்ளப்படுகின்றன. நதிநீர் மாசுப் படுதலாலும், நதிகளை மாற்றி அமைப்பதாலும் இவ்வகை ஆமை இனம் அழியும் அபாயத்தில் உள்ளது.
இனம் கண்டறிதல்: முதுகோட்டின் உயரம் குறைவாக இருக்கும். மூக்கு நீண்டு காணப்படும். முதுகோட்டு தோலின் முன்பாகத்தில் நிறைய கணுக்கள் இருக்கும்.
தகுதி : ஐயூசிஎன் (IUCN) ரெட் லிஸ்ட் - வல்னரபல் இந்திய வனவிலங்கு (பாதுகாப்பு) சட்டம்- செட்யூல் IV.
பரவியிருத்தல்: தமிழகம், கேரளம், கர்நாடகம் மற்றும் ஆந்திர மாநிலங்களில் உள்ள முக்கிய நதிகளில் இவை காணப்படும் மற்றும் ஒரிசா மாநிலத்திலும், மஹாராஷ்ட்ரா மாநிலத்திலும் உள்ள சில நதிகளிலும் இவை காணப்படும்.
வட்டார மொழிகள் : தமிழ் : பரிசல் ஆமை, சிரவி ஆமை, தோணி ஆமை. கன்னடம் : பாலேபு. தெலுங்கு : நதிதபேலு

இவ்வின ஆமையை உங்கள் பகுதியில் பார்த்தாலோ, கேள்விப்பட்டாலோ தயவு செய்து கீழ்க்கண்ட முகவரிக்கு தெரிவிக்கவும். நாங்கள் கண்டிப்பாக உங்களை தொடர்புக் கொள்வோம்.

ಲೀತ್ಸ್ ಸಾಫ್ಟ್‌ಶೆಲ್ (Leith's softshell) ಎಂಬುದು ಸಿಹಿನೀರಿನಲ್ಲಿ ಅಂದರೆ ನದಿ ಮತ್ತು ಕೆರೆಕಟ್ಟೆಗಳಲ್ಲಿ ವಾಸಿಸುವ ಆಮೆ. ಇದು 630 ಮಿಮೀ. ವರೆಗೂ ಬೆಳೆಯುತ್ತದೆ ಮತ್ತು ಇದು ಸಂಪೂರ್ಣವಾಗಿ ಜಲಚರ ಪ್ರಾಣಿ. ಇದು ಮೀನು, ಏಡಿ, ಸೊಳ್ಳೆಯ ಮರಿ (ಸೊಳ್ಳೆಯ ಲಾರ್ವ) ಮತ್ತು ಸಿಹಿನೀರಿನಲ್ಲಿರುವ ಮೃದ್ವಂಗಿಗಳನ್ನು ತಿಂದು ಬದುಕುತ್ತದೆ. ಈ ಆಮೆಯು ಜೂನ್ ತಿಂಗಳ ಮಧ್ಯದಲ್ಲಿ ಗೂಡನ್ನು
ಕಟ್ಟುತ್ತದೆ. ಇವುಗಳು ಎಷ್ಟು ಮೊಟ್ಟೆ ಇಡುತ್ತವೆ ಎನ್ನುವುದು ಇನ್ನೂ ತಿಳಿದಿಲ್ಲ. ಇವುಗಳ ಮೊಟ್ಟೆಗಳು 30–31 ಮಿಮೀ ಇರುತ್ತವೆ. ಮರಿಗಳು 4–6 ಪ್ರಧಾನವಾದ 'ಆಸಿಲ್ಲಿ' (ಬೇರೆ ಬಣ್ಣದಿಂದ ಸುತ್ತುವರೆದಿರುವ ಒಂದು ಬಣ್ಣದ ಕಲೆ)ಯನ್ನು ಅವುಗಳ ಮೇಲ್ಚಿಪ್ಪಿನ ಮೇಲೆ ಹೊಂದಿದೆ. ವಯಸ್ಕ ಆಮೆಗಳ ಮೇಲಿನ ದವಡೆಯ ಮೇಲೆ ಎದ್ದು ಕಾಣುವ ಕಿತ್ತಳೆ ಬಣ್ಣದ ಗುರುತು ಇದೆ. ಇದು ವಾಸಿಸುತ್ತಿರುವ ಎಲ್ಲಾ ಪ್ರದೇಶದಲ್ಲಿ ಆಹಾರಕ್ಕಾಗಿ ಇದರ ಅತಿಯಾದ ಬೇಟೆ, ನದಿಗಳ ಮಾರ್ಪಾಡು ಮತ್ತು ನದಿಯ ಮಾಲಿನ್ಯ ಇವೆಲ್ಲವೂ ಈ ಪ್ರಾಣಿಯನ್ನು ಅವನತಿಯ ಅಂಚಿಗೆ ದೂಡಿದೆ.

ಗುರುತಿಸುವಿಕೆ : ಇದು ಸ್ವಲ್ಪ ತಗ್ಗಾದ (low) ಮೇಲ್ಚಿಪ್ಪನ್ನು ಹೊಂದಿದೆ. ಇದರ ತಲೆಯ ಮುಂಭಾಗದಲ್ಲಿರುವ ಮೂಗಿನ ಹೊಳ್ಳೆಗಳು ಎದ್ದು ಕಾಣುತ್ತವೆ. ಚಿಪ್ಪಿನ ಮುಂಭಾಗದಲ್ಲಿ ಸಣ್ಣ ಸಣ್ಣ ಗಂಟುಗಳು ಮೂಡಿರುತ್ತವೆ.
ಸ್ಥಾನಮಾನ : (IUCN) ಕೆಂಪು ಪಟ್ಟಿಯ ಪ್ರಕಾರ 'ವಲ್ನರಬಲ್' (Vulnerable) ಎಂದು ಗುರುತಿಸಲ್ಪಟ್ಟಿದೆ.
ಭಾರತದ ವನ್ಯಜೀವಿ (ಸಂರಕ್ಷಣೆ) ಕಾಯಿದೆಯ ಪ್ರಕಾರ ಇದು ಶೆಡ್ಯೂಲ್ IV ರಲ್ಲಿರುವ ಪ್ರಾಣಿ.
ಹಂಚಿಕೆ : ಭಾರತದ ಪರ್ಯಾಯ ದ್ವೀಪ ಭಾಗಕ್ಕೆ ಮಾತ್ರ ಸೀಮಿತವಾಗಿದೆ. ಆಂಧ್ರಪ್ರದೇಶ, ಕೇರಳ, ಕರ್ನಾಟಕ ಮತ್ತು ತಮಿಳುನಾಡು ರಾಜ್ಯಗಳ ಮುಖ್ಯವಾದ ನದಿಗಳಲ್ಲಿ ಹಾಗೂ ಮಹಾರಾಷ್ಟ್ರ ಮತ್ತು ಒರಿಸ್ಸಾದ ಕೆಲವು ನದಿಗಳಲ್ಲಿ ಕಾಣಸಿಗುತ್ತದೆ. ಸ್ಥಳೀಯ ಹೆಸರುಗಳು: ಕನ್ನಡ : ಪಾಲೆಪೂ ತಮಿಳು: ಪರಿಸಲ್ ಆಮೈ, ಸೆರವಿ ಆಮೈ, ಥೋಣಿ ಆಮೈ. ತೆಲುಗು : ನದಿ ತಬೇಲು.

ಈ ಆಮೆಯ ಇರುವಿಕೆಯ ಬಗ್ಗೆ ಮಾಹಿತಿ ದೊರೆತರೆ ಅಥವಾ ಈ ಪ್ರಾಣಿಯನ್ನು ನೋಡಿದರೆ ದಯವಿಟ್ಟು ಈ ಕೆಳಗೆ ಕೊಟ್ಟಿರುವ ವಿಳಾಸಕ್ಕೆ ಪತ್ರ ಬರೆಯುವ ಮೂಲಕ ಅಥವಾ ದೂರವಾಣಿಯ ಮೂಲಕ ವಿಚಾರವನ್ನು ತಿಳಿಸಿದರೆ ನಾವು ಖಂಡಿತವಾಗಿ ಮಾಹಿತಿ ಪಡೆಯಲು ಸಂಪರ್ಕಿಸುತ್ತೇವೆ.

ലീത്തിന്റെ വെള്ളാമ (Leith's softshell)
നദികളിലും ജലസംഭരണികളിലും കാണപ്പെടുന്ന വലിയ ആമകളാണിവ. ജലത്തിൽ മാത്രം ജീവിക്കുന്ന ഇവയ്ക്ക് ഏതാണ്ട് 630 മില്ലി മീറ്ററോളം നീളമുണ്ടാകും. മീനുകൾ, ഞണ്ട്, കൂത്താടി, ശുദ്ധജലത്തിൽ കാണപ്പെടുന്ന കക്കകൾ എന്നിവയാണ് ഇവറ്റകളുടെ ആഹാരം. ഏതാണ്ട് ജൂൺ പകുതിയാവുന്നതോടെ ലീത്തിന്റെ വെള്ളാമകൾ കൂടുകൂട്ടി മുട്ടയിടുവാൻ തുടങ്ങും. എന്നാൽ ഒരു സമയം ഇവ എത്ര മുട്ടകൾ ഇടുമെന്ന കാര്യം ഇപ്പോഴും അജ്ഞാതമാണ്. മുട്ടകൾക്ക് 30 മുതൽ 31 മില്ലി മീറ്റർ വരെ വലുപ്പമുണ്ടാകും. വിരിഞ്ഞ് അധികം പ്രായമാകാത്ത കുഞ്ഞുങ്ങളുടെ പുറം തോടിൽ നാലോ ആറോ ഉം ചുവന്ന നിറത്തിലുള്ള വളരെ വ്യക്തമായി കാണാവുന്ന വൃത്താകൃതിയിലുള്ള ചില അടയാളങ്ങൾ ഉണ്ടാവും. മേൽത്താടിയിലുള്ള ഓറഞ്ചു നിറം പൂർണ്ണവളർച്ചയെത്തിയ ലീത്തിന്റെ വെള്ളാമകളുടെ പ്രത്യേകതയാണ്. മിക്ക പ്രദേശങ്ങളിലും, ഇവയെ ഭക്ഷണത്തിനായി വേട്ടയാടാറുണ്ട്. നദികളുടെ മലിനീകരണവും, രൂപാന്തരവുമെല്ലാം ഇവയുടെ നിലനിൽപിനെ തന്നെ ചോദ്യം ചെയ്യുന്ന വസ്തുതകളാണ്.
തിരിച്ചറിയൽ - വളരെ താഴ്ന്ന പുറം തോടും, തലയുടെ മുൻപിലായുള്ള നാസാദ്വാരങ്ങളും, അരിമ്പാറ പോലെ ഉന്തിനിൽക്കുന്ന മുഴകളോടുകൂടിയ പുറംതോടും ഇവയെ പെട്ടന്ന് തിരിച്ചറിയാൻ സഹായിക്കും.
IUCN റെഡ് ലിസ്റ്റിൽ വംശനാശഭീഷണി നേരിടുന്ന ജീവികളുടെ വിഭാഗത്തിൽ പെടുത്തിയിരിക്കുന്ന ഇവയെ ഇന്ത്യൻ വന്യജീവി സംരക്ഷണ നിയമത്തിന്റെ നാലാം പട്ടികയിൽ പെടുത്തി സംരക്ഷിക്കുന്നു.
പ്രാദേശിക നാമങ്ങൾ തമിഴ് - പെരിയ ആമൈ, സെരവി ആമൈ, കന്നഡ - പാലെപൂ, തെലുങ്ക് - നദിതാബേലു
നിങ്ങൾ ഇതിനെ കാണുകയോ ഇതിനെപ്പറ്റി കേൾക്കുകയോ ചെയ്തിട്ടുണ്ടെങ്കിൽ ദയവായി താഴെക്കൊടുത്തിരിക്കുന്ന മേൽവിലാസത്തിൽ ബന്ധപ്പെടുക. ഞങ്ങൾ ഉടൻതന്നെ നിങ്ങളുമായി ബന്ധപ്പെടുന്നതാണ്.

Leith's softshell (*Nilssonia leithii*) is a large fresh water turtle found in rivers and reservoirs. It grows up to 630 mm and is completely aquatic. It feeds on fishes, crabs, mosquito larvae and fresh water molluscs. It nests during mid June, clutch size is unknown. The eggs measure 30-31 mm. Hatchlings have 4-6 prominent ocelli on the carapace. Adults have a prominent orange marking on the upper jaw. In most of its range, the species is hunted and consumed. It is threatened due to river alteration and pollution. Identification: It has a low carapace. Nostrils in front of the head are prominent and the front of shell has many wart like projections. Status: IUCN Red list - Vulnerable; India's Wildlife (Protection) Act - Schedule IV. Distribution: Known only from Peninsular India. Major Rivers in the state of Andhra Pradesh, Kerala, Karnataka and Tamil Nadu; and in some rivers of Maharashtra and Orissa. Vernacular names: Tamil: Parisal amai, Seravi amai, Thoni amai. Kannada: Pale poo. Telugu: Nadi tabelu.

If you have seen or heard about this tortoise anywhere in your area, please write or contact us at the address given below and we will get in touch with you soon

Contact: Karthikeyan Vasudevan, Wildlife Institute of India, P.O. Box 18, Chandrabani, Dehradun 248001, Uttarakhand, India
Phone: 0135-2640111 to 115; email: turtle&tortoise@wii.gov.in
Photos and map: V. Deepak

Plate 3.5

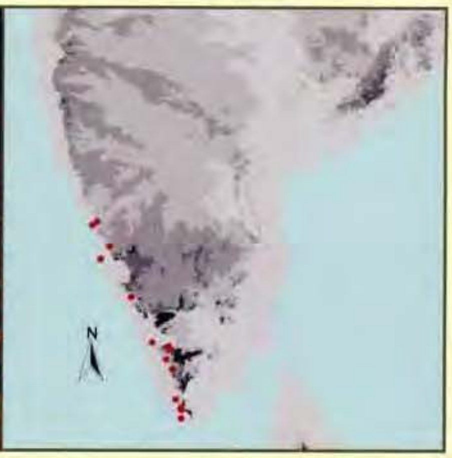
இந்தியாவில் மட்டும் காணப்படும் ஆமைகள்

ഇന്ത്യയിൽ മാത്രം ജീവിക്കുന്ന ആമകൾ

ಭಾರತಕ್ಕೆ ಸೀಮಿತವಾದ ಆಮೆಗಳು

India's Endemic Turtles

Locality records



கேன் பொடில் (cane turtle) ஒரு சிறிய காட்டு ஆமை. அவை 139 மி.மீ நீளம் வரை வளரக்கூடியவை. நத்தைகள், பூச்சிகள், மண் புழுக்கள், மற்றும் பழங்களை உணவாக உட்கொள்ளும். பச்சைக் காடுகளில் 10 முதல் 800 மீ கடல் மட்ட உயரத்தில் காணப்படும். இவ்வகை ஆமைகள் ஆண், பெண், நிறத்தில் வித்தியாசமாக காணப்படும். ஆண் ஆமைகளுக்கு தலை பளிச்சென்ற மஞ்சள், கருப்பு, மற்றும் பிங்க் நிறத்தில் இருக்கும். அதுவே பெண் ஆமைகளின் தலையில் பிங்க் நிறத்தில் கோடு இருக்கும். இனச்சேர்க்கை பருவ மழைக் காலங்களில் (ஜூலை முதல் அக்டோபர்) நடைபெறும். 1 முதல் 3 முட்டைகள் இடும். வாழிடம் நாசக்கேடு மற்றும் வாழிடம் துண்டாதல் இவ்வினத்தின் அழிவிற்கு முக்கியக் காரணமாக அமையும்.

இனம் கண்டறிதல்: சிறிய தட்டையான மேல் ஓடு. ஆண் ஆமைகளின் தலையின் நிறம் பளிச்சென்று இருக்கும்.

தகுதி: ஐ.யு.சி.என் (IUCN) ரெட் லிஸ்ட் - என்டேஞ்சர்ட். இந்திய வனவிலங்கு (பாதுகாப்பு) சட்டம் செட்யூல்-I.

பரவியிருத்தல்: மேற்கு தொடர்ச்சி மலைப்பகுதியில் மட்டும் காணப்படுகிறது. தமிழகம், கேரளம், மற்றும் கர்நாடகா மாநிலங்களில் காணப்படுகிறது.

வட்டார மொழிகள்: தமிழ்: வெங்கள ஆமை, மலையாளம்: சூரல் ஆம கன்னடம்: பெட்டா ஆமே, துளு: குண்டே ஆமே. காடர்: செங்கனி ஆமை காணி: அயினி இலை ஆமை, செங்கண்ணன் ஆமை, மோட்டல் ஆமை.

இவ்வின ஆமையை உங்கள் பகுதியில் பார்த்தாலோ, கேள்விப்பட்டாலோ தயவு செய்து கீழ்க்கண்ட முகவரிக்கு தெரிவிக்கவும், நாங்கள் கண்டிப்பாக உங்களை தொடர்புக் கொள்வோம்.

ಕೇನ್ ಟರ್ಟಲ್ (cane turtle) ಕಾಡಿನಲ್ಲಿ ಕಂಡು ಬರುವಂತಹ ಸಣ್ಣ ಆಮೆ. ಇದು 139 ಮಿ.ಮೀ. ಉದ್ದದವರೆಗೂ ಬೆಳೆಯುತ್ತದೆ. ಇವು ಸರ್ವಭಕ್ಷಕಗಳು ಹಾಗಾಗಿ ಇವು ಮೃದ್ವಂಗಿಗಳು, ಕೀಟಗಳು, ಎರೆಹುಳು ಮತ್ತು ಹಣ್ಣುಗಳನ್ನು ತಿಂದು ಜೀವಿಸುತ್ತದೆ. ಸಮುದ್ರ ಮಟ್ಟದಿಂದ 10 ರಿಂದ 800 ಮೀ. ಎತ್ತರದಲ್ಲಿರುವ ನಿತ್ಯ ಹರಿದ್ವರ್ಣ ಕಾಡುಗಳು ಮತ್ತು ಅರೆ ನಿತ್ಯಹರಿದ್ವರ್ಣ ಕಾಡುಗಳಲ್ಲಿ ಕಂಡುಬರುತ್ತವೆ. ಈ ಜಾತಿಯ ಆಮೆಗಳಲ್ಲಿ ಗಂಡು ಮತ್ತು ಹೆಣ್ಣುಗಳು ಬೇರೆ ಬೇರೆ ಬಣ್ಣವನ್ನು ಹೊಂದಿವೆ. ಇವುಗಳಲ್ಲಿ ಗಂಡುಗಳ ತಲೆ ಕಡು ಗುಲಾಬಿ, ಅಥವಾ ಹಳದಿ ಅಥವಾ ಕಪ್ಪು ಬಣ್ಣದ್ದಾಗಿರುತ್ತದೆ. ಹೆಣ್ಣುಗಳಲ್ಲಿ ಅವುಗಳ ತಲೆಯ ಮೇಲೆ ತಿಳಿ ಗುಲಾಬಿ ಬಣ್ಣದ ಗೆರೆ ಇರುತ್ತದೆ. ಇವುಗಳ ಕೂಡಿಯಾಟ ಮುಂಗಾರಿನಲ್ಲಿ ಅಂದರೆ ಜುಲೈನಿಂದ ಅಕ್ಟೋಬರ್ ತಿಂಗಳಲ್ಲಿ ನಡೆದು 1–3 ಸಣ್ಣ ಮೊಟ್ಟೆಯನ್ನಿಡುತ್ತವೆ. ಆವಾಸಸ್ಥಾನದ ಮಾರ್ಪಾಡು ಹಾಗೂ ಛಿದ್ರೀಕರಣವು ಈ ಆಮೆಗಳ ವಿನಾಶಕ್ಕೆ ಬಹುಮುಖ್ಯ ಕಾರಣವಾಗಿದೆ.

ಗುರುತಿಸುವಿಕೆ : ಇದು ಸಣ್ಣ ಮೃದುವಾದ ಚಪ್ಪಟೆಯಾದ ಮೇಲ್ಚಿಪ್ಪನ್ನು ಹೊಂದಿದೆ. ಗಂಡುಗಳು ಎದ್ದುಕಾಣುವಂತಹ ಬಣ್ಣವನ್ನು ಹೊಂದಿರುತ್ತದೆ.

ಸ್ಥಾನಮಾನ : IUCN ಕೆಂಪು ಪಟ್ಟಿಯ ಪ್ರಕಾರ ವಿನಾಶದ ಅಂಚಿನಲ್ಲಿರುವ ಪ್ರಾಣಿ 'ಎಂಡೇಂಜರ್ಡ್' (Endangered) ಎಂದು ಗುರುತಿಸಲ್ಪಟ್ಟಿದೆ. ಭಾರತದ ವನ್ಯಜೀವಿ (ಸಂರಕ್ಷಣೆ) ಕಾಯಿದೆ ಪ್ರಕಾರ ಇದು ಶೆಡ್ಯೂಲ್ I ರಲ್ಲಿರುವ ಪ್ರಾಣಿ.

ಹರಡಿರುವಿಕೆ : ಕೇರಳ, ಕರ್ನಾಟಕ ಮತ್ತು ತಮಿಳುನಾಡು ರಾಜ್ಯಗಳಲ್ಲಿರುವ ನಿತ್ಯಹರಿದ್ವರ್ಣ ಕಾಡುಗಳಲ್ಲಿ ಮಾತ್ರ ಕಂಡುಬರುತ್ತದೆ.

ಸ್ಥಳೀಯ ಹೆಸರುಗಳು : ಕನ್ನಡ : ಬೆಟ್ಟದ ಆಮೆ, ತುಳು : ಕುಂಡೆ ಆಮೆ. ತಮಿಳು : ವೆಂಗಳ ಆಮ್ಯ, ಮಲಯಾಳಂ : ಚುರ್ರೆಲ್ ಆಮ. ಕಾಡರ್ : ಸೆಂಗಾನಿ ಅಮ್ಮ, ಕಾಣಿ : ಅಯನಿ ಇಲ್ಲೆಯನ್ ಅಮ್ಮ, ಸೆಂಗಿ ಕನ್ನನ್. ಮೂತಲ್ ಅಮ್ಮ

ಈ ಆಮೆಯ ಇರುವಿಕೆಯ ಬಗ್ಗೆ ಮಾಹಿತಿ ದೊರೆತರೆ ಅಥವಾ ಈ ಪ್ರಾಣಿಯನ್ನು ನೋಡಿದರೆ ದಯವಿಟ್ಟು ಈ ಕೆಳಗೆ ಕೊಟ್ಟಿರುವ ವಿಳಾಸಕ್ಕೆ ಪತ್ರ ಬರೆಯುವ ಮೂಲಕ ಅಥವಾ ದೂರವಾಣಿಯ ಮೂಲಕ ವಿಚಾರವನ್ನು ತಿಳಿಸಿದರೆ ನಾವು ಖುದ್ದಾಗಿ ಮಾಹಿತಿ ಪಡೆಯಲು ಸಂಪರ್ಕಿಸುತ್ತೇವೆ.

ചൂരലാമ (Cane turtle) ഏതാണ്ട് 139 മില്ലി മീറ്റർ വരെ വളർച്ചയെത്തുന്ന ചെറിയ ആമകളാണ് ചൂരലാമകൾ. നല്ലൊരു മിശ്രഭുക്കായ ഇവയുടെ പ്രധാന ആഹാരം ഒച്ചുകൾ, പ്രാണികൾ, മണ്ണിര, പഴങ്ങൾ എന്നിവയാണ്. നിത്യഹരിത വനങ്ങളിലും, അർദ്ധ നിത്യഹരിത വനങ്ങളിലും, 10 മുതൽ 800 മീറ്റർ വരെ ഉയരമുള്ള പ്രദേശങ്ങളിലാണ് ഇവയുടെ വാസം. ആൺ, പെൺ ചൂരലാമകൾ വ്യത്യസ്തമായ വർണ്ണങ്ങളിലുള്ളവയാണ്. ആൺആമകളുടെ തലയ്ക്ക് കടുത്ത പിങ്കോ, മഞ്ഞയോ, കറുപ്പോ നിറമായിരിക്കും. എന്നാൽ പെണ്ണാമകളുടെ തലയിൽ ഒരു നേർത്ത പിങ്കുവര മാത്രമേ ഉണ്ടാവൂ. ഒരു സമയം 1 മുതൽ 3 വരെ മുട്ടകളിടും. ആവാസവ്യവസ്ഥയുടെ ശോഷണവും, വിഘടനവും ഇവയുടെ നിലനിൽപ്പിന് ഭീഷണിയാകുന്നു.

തിരിച്ചറിയൽ: ചെറിയ പരന്ന പുറംതോടും, ആണുങ്ങളുടെ തലയിലെ കടുത്ത നിറവും ഇവയെ തിരിച്ചറിയാൻ സഹായകമാണ്.

IUCN റെഡ് ലിസ്റ്റിൽ ഇവയെ ഉൾപ്പെടുത്തിയിരിക്കുന്നത് വംശനാശഭീഷണി നേരിടുന്ന ഗണത്തിലാണ്. അതുപോലെ തന്നെ ഇന്ത്യൻ വന്യ ജീവി സംരക്ഷണ നിയമത്തിന്റെ ഒന്നാം പട്ടികയിൽ പെടുത്തിയിരിക്കുന്നു.

പശ്ചിമഘട്ടത്തിന്റെ ഭാഗമായ കേരളം, കർണ്ണാടക, തമിഴ്നാട് എന്നീ സംസ്ഥാനങ്ങളിലാണിവയെ സാധാരണയായി കണ്ടുവരുന്നത്.

പ്രാദേശിക നാമങ്ങൾ: മലയാളം - ചൂരലാമ, തമിഴ് - വെങ്കലയാമൈ, കന്നട - ബെറ്റാട, തുളു - കുണ്ടെ ആമ, കാടർ - സെങ്കണി ആമൈ, കാണി - അയനി ഇല്ലയൻ ആമ, സെങ്കണ്ണൻ ആമ, മോട്ടൽ ആമൈ

നിങ്ങൾ ഇതിനെ കാണുകയോ ഇതിനെപ്പറ്റി കേൾക്കുകയോ ചെയ്തിട്ടുണ്ടെങ്കിൽ ദയവായി താഴെ കൊടുത്തിരിക്കുന്ന മേൽവിലാസത്തിൽ ബന്ധപ്പെടുക. ഞങ്ങൾ ഉടൻതന്നെ നിങ്ങളുമായി ബന്ധപ്പെടുന്നതാണ്.

Cane turtle (*Vijayachelys silvatica*) is a small forest turtle, growing up to 139 mm in length. It is omnivorous and feeds on molluscs, insects, earthworms and fruits. It is found in evergreen and semi-evergreen forest between 10-800 m above sea level. Males and females of the species have different colouration. The males have dark pink or yellow or black head, while the female has faint pink line on the head. It mates during monsoon (July to October) and lay 1-3 small eggs. Habitat alteration and fragmentation poses major threat to the cane turtle. Identification: small with a malleable, almost flat upper shell; males with a prominent head colouration. Status: IUCN Red list: Endangered; India's Wildlife (Protection) Act: Schedule I. Distribution: Known only from the Western Ghats, in the state of Kerala, Karnataka and Tamil Nadu. Vernacular names: Tamil: Vengala amai, Malayalam: Churrel aama, Kannada: Bettadh/Bettada amae, Thulu: Kunde amae, Kadar: Sengani amai, Kanis: Ayani ilaiyan amai, Sengkannan, Mootal amai.

If you have seen or heard about this tortoise anywhere in your area, please write or contact us at the address given below and we will get in touch with you soon

Contact: Karthikeyan Vasudevan, Wildlife Institute of India, P.O. Box 18, Chandrabani, Dehradun 248001, Uttarakhand, India
Phone: 0135-2640111 to 115; email: turtle&tortoise@wii.gov.in
Photos and map: V. Deepak

Plate 3.6

இந்தியாவில் மட்டும் காணப்படும் ஆமைகள்

ಭಾರತಕ್ಕೆ ಸೀಮಿತವಾದ ಆಮೆಗಳು

ഇന്ത്യയിൽ മാത്രം ജീവിക്കുന്ന ആമകൾ

India's Endemic Turtles

Locality records

திருவாங்கூர் ஆமை (Travancore tortoise) ஒரு பெரிய காட்டு ஆமை. அது 330 மி.மீ வரை வளரக் கூடியது. அது அதிகளவில் மலைக்காடுகளில் 450-850 மீ கடல் மட்ட உயரத்தில் காணப்படும். ஆண் ஆமைகள் இனச்சேர்க்கையின் போது ஒன்றோடு ஒன்று மோதிக்கொள்ளும். பெண் ஆமைகள் மண்ணில் ஒரு சிறிய குழி தோண்டி அதில் முட்டையிடும். ஒன்று முதல் ஐந்து முட்டைகள் வரை இடும். ஆமைகுஞ்சுகள் 55-60 மி.மீ நீளம் வரை இருக்கும். இவ்வகை ஆமைகள் அதிகளவில் வேட்டையாடப்படுகின்றன. அது மட்டுமில்லாமல் காட்டுத்தீ, வாழிடம் நாசக்கேடு மற்றும் வாழிடம் துண்டாதல் மூலமாக இவ்வினம் அழியும் அபாயத்தில் உள்ளது.

இனம் கண்டறிதல்: தலையின் பின் முதுகோட்டில் சிறிய செதில் இருக்காது ஓட்டின் முதுகெலும்பு பாகத்தில் இரண்டாவதாக வரும் ஓடுதான் ஆமையின் உயரமான பகுதி ஆகும்.

தகுதி : ஐ.யூ.சி.என் (IUCN) ரெட் லிஸ்ட் - வல்னரபல். இந்திய வனவிலங்கு (பாதுகாப்பு) சட்டம்- செட்யூல் IV.

பரவியிருத்தல் : தமிழகம், கேரளம் மற்றும் கர்நாடகா மாநிலங்களில் மேற்கு தொடர்ச்சி மலைப்பகுதியில் மட்டும் காணப்படுகிறது.

அவரவர் மொழிகள் : தமிழ் : பெரிய ஆமை, கல் ஆமை, காடர் : வெங்கல ஆமை, கன்னடம்: பெட்ட ஆமே, குட்டே ஆமே, காடு ஆமே, மலையாளம் : சூரல் ஆமா.

இவ்வின ஆமையை உங்கள் பகுதியில் பார்த்தாலோ, கேள்விப்பட்டாலோ தயவு செய்து கீழ்க்கண்ட முகவரிக்கு தெரிவிக்கவும். நாங்கள் கண்டிப்பாக உங்களை தொடர்புக் கொள்வோம்.

ಟ್ರಾವಂಕೋರ್ ಆಮೆ (Travancore tortoise): ಕಾಡಿನಲ್ಲಿ ಜೀವಿಸುವ ಒಂದು ಅತಿದೊಡ್ಡ ಆಮೆ. ಇದು 330 ಮಿಮೀ.ನಷ್ಟು ಬೆಳೆಯುತ್ತದೆ. ಇದು ಮುಖ್ಯವಾಗಿ ಹುಲ್ಲು ಮತ್ತು ಸಣ್ಣಗಿಡಗಳನ್ನು ತಿನ್ನುತ್ತದೆ. ಇದು ಮೃದ್ವಂಗಿಗಳು, ಕೀಟಗಳು, ಸತ್ತು ಕೊಳೆಯುತ್ತಿರುವ ಪ್ರಾಣಿಗಳು, ಶಿಲೀಂಧ್ರಗಳು ಮತ್ತು ಹಣ್ಣುಗಳನ್ನೂ ಸಹ ತಿನ್ನುತ್ತದೆ. ಇದು 450–850 ಮೀ. ಸಮುದ್ರಮಟ್ಟದಿಂದ ಎತ್ತರದಲ್ಲಿರುವ ಬೆಟ್ಟ ಪರ್ವತದ ಕಾಡುಗಳಲ್ಲಿ ಕಂಡು ಬರುತ್ತದೆ. ಸಂತಾನೋತ್ಪತ್ತಿಯ ಸಮಯದಲ್ಲಿ ಅಂದರೆ ನವೆಂಬರ್‌ನಿಂದ ಮಾರ್ಚ್‌ನಲ್ಲಿ ಗಂಡು ಆಮೆಗಳು ತಮ್ಮ ಹೊರ ಮೇಲ್ಮೈ ಚಿಪ್ಪಿನಿಂದ ಗುದ್ದಿ ಹೋರಾಡುತ್ತವೆ. ಇವುಗಳು ನೆಲದಲ್ಲಿ ಸಣ್ಣದಾದ ಗುಂಡಿಯನ್ನು ಮಾಡಿಕೊಂಡು ಅಲ್ಲಿ 50–60 ಮಿಮೀ. ಗಾತ್ರದ ಮೊಟ್ಟೆಗಳನ್ನು ಇಡುತ್ತದೆ. ಇದನ್ನು ಬೇಟೆಯಾಡುತ್ತಾರೆ. ಹಾಗೂ ಕಾಡ್ಗಿಚ್ಚು, ಆವಾಸಸ್ಥಾನದ ನಾಶ ಮತ್ತು ಆವಾಸಸ್ಥಾನದ ಛಿದ್ರೀಕರಣದಿಂದಾಗಿ ಈ ಪ್ರಾಣಿಯು ಅವನತಿಯ ಹಂತ ತಲುಪುವ ಭೀತಿ ಇದೆ.

ಗುರುತಿಸುವಿಕೆ : ಈ ಆಮೆಯಲ್ಲಿ ನೆತ್ತಿಯ (ತಲೆ) ಮೇಲಿನ ಸ್ಕ್ಯೂಟ್ ಇರುವುದಿಲ್ಲ ಮತ್ತು ಬೆನ್ನುಮೂಳೆಯ ಜೊತೆ ಇರುವ ಎರಡನೇ ಸ್ಕ್ಯೂಟ್ ಮೇಲ್ಮೈ ಚಿಪ್ಪಿನ ತುದಿಯಲ್ಲಿರುತ್ತದೆ.

ಸ್ಥಾನಮಾನ : IUCN ಕೆಂಪು ಪಟ್ಟಿಯ ಪ್ರಕಾರ ಇದು 'ವಲ್ನರಬಲ್' (Vulnerable) ಎಂದು ಗುರುತಿಸಲ್ಪಟ್ಟಿದೆ. ಭಾರತದ ವನ್ಯಜೀವಿ ಸಂರಕ್ಷಣಾ ಕಾಯಿದೆಯ ಪ್ರಕಾರ ಇದು ಶೆಡ್ಯೂಲ್ 4ರಲ್ಲಿರುವ ಪ್ರಾಣಿ.

ಹಂಚಿಕೆ: ಈ ಆಮೆಗಳು ಕೇರಳ, ಕರ್ನಾಟಕ ಹಾಗು ತಮಿಳುನಾಡು ರಾಜ್ಯಗಳಲ್ಲಿರುವ ಪಶ್ಚಿಮ ಘಟ್ಟದ ಕಾಡುಗಳಿಗೆ ಸೀಮಿತವಾಗಿದೆ.

ಸ್ಥಳೀಯ ಹೆಸರುಗಳು : ಕನ್ನಡ – ಬೆಟ್ಟ ಆಮೆ, ಗುಡ್ಡೆ ಆಮೆ, ಕಾಡು ಆಮೆ, ಮಲಯಾಳಂ – ಚುರ್ರೆಲ್ ಆಮ, ತಮಿಳು– ಪೆರಿಯ ಅಮೈ, ಕಲ್ ಅಮೈ, ಕಾಡಾಸ್ – ವೆಂಗಲ ಅಮೈ.

ಈ ಆಮೆಯನ್ನು ನೋಡಿದರೆ ಅಥವಾ ಅದು ಇರುವ ಬಗ್ಗೆ ನಿಮ್ಮ ಸ್ಥಳದಲ್ಲಿ ಮಾಹಿತಿ ದೊರೆತರೆ, ದಯವಿಟ್ಟು ಈ ಕೆಳಗೆ ಕೊಟ್ಟಿರುವ ವಿಳಾಸಕ್ಕೆ ಬರೆದು ಅಥವಾ ದೂರವಾಣಿಯ ಮೂಲಕ ತಿಳಿಸಿರಿ. ನಂತರ ನಾವು ನಿಮ್ಮೊಂದಿಗೆ ಇದರ ಬಗ್ಗೆ ಮಾಹಿತಿ ಪಡೆಯಲು ಬಹುಬೇಗ ಸಂಪರ್ಕಿಸುತ್ತೇವೆ.

തിരുവിതാംകൂർ ആമ (Travancore tortoise) 330 മില്ലി മീറ്ററോളം വലുപ്പമുള്ള കാട്ടാമകളാണ് തിരുവിതാംകൂർ ആമകൾ. നത്തക്കക്ക, പ്രാണികൾ, കൂണുകൾ, പഴങ്ങൾ തുടങ്ങിയവയെ എല്ലാം ഭക്ഷണമാക്കുമെങ്കിലും, ഇവയുടെ പ്രധാനയാഹാരം കുറ്റിച്ചെടികളും, പുല്ലുകളുമാണ്. 450 മുതൽ 850 മീറ്റർ വരെ ഉയരമുള്ള മലമ്പ്രദേശങ്ങളിലാണ് ഇവയെ സാധാരണയായി കാണുന്നത്.

മണ്ണിൽ ചെറിയ കുഴികൾ ഉണ്ടാക്കി അതിലാണിവ മുട്ടയിടുന്നത്. ശരാശരി 1 മുതൽ 5 വരെ മുട്ടകൾ ഇടാറുണ്ട്. മുട്ട വിരിഞ്ഞുവന്ന കുഞ്ഞുങ്ങൾക്ക് ഏതാണ്ട് 55–60 മി.മീറ്ററോളം വലുപ്പമുണ്ടാകും. വേട്ടയാടൽ കൂടാതെ കാട്ടുതീ, വാസവ്യവസ്ഥയുടെ നശീകരണം, വിഛേദനം എന്നിവയെല്ലാം ഇവയുടെ നിലനിൽപ്പിന് ഭീഷണിയാകുന്നു.

തിരിച്ചറിയൽ: തവിട്ട് നിറത്തിലുള്ള പുറംതോടിൽ കറുപ്പോ, കടും കാപ്പിനിറത്തോടു കൂടിയതോ ആയ ചെറിയ ദീർഘചതുരാകൃതിയിലുള്ള അടയാളങ്ങൾ ഇവയെ തിരിച്ചറിയാൻ സഹായിക്കും.

IUCN റെഡ് ലിസ്റ്റിൽ വംശനാശഭീഷണി നേരിടുന്ന ഗണത്തിലാണ് ഇവയെ ഉൾപ്പെടുത്തിയിരിക്കുന്നത്. കൂടാതെ ഇന്ത്യൻ വന്യജീവി സംരക്ഷണനിയമത്തിന്റെ നാലാം പട്ടികയിൽ പെടുത്തിയിരിക്കുന്നു.

പ്രാദേശിക നാമങ്ങൾ: തമിഴ്- പെരിയ ആമൈ, കാടാർ-വെങ്കലാമ, കന്നട - ബെട്ട ആമെ, ഗുഡ്ഡ ആമെ, കാട് ആമ

നിങ്ങൾ ഇതിനെ കാണുകയോ ഇതിനെപ്പറ്റി കേൾക്കുകയോ ചെയ്തിട്ടുണ്ടെങ്കിൽ ദയവായി താഴെക്കൊടുത്തിരിക്കുന്ന മേൽവിലാസത്തിൽ ബന്ധപ്പെടുക ഞങ്ങൾ ഉടൻതന്നെ നിങ്ങളുമായി ബന്ധപ്പെടുന്നതാണ്.

Travancore tortoise (*Indotestudo travancorica*) is a large forest tortoise growing up to 330 mm. It primarily feeds on grasses and herbs. It also feeds on molluscs, insects, animal carcass, fungi and fruits. It occurs in hill forests at 450-850 m above sea level. Males combat by ramming their shell during their breeding season between November and March. It makes a shallow nest in the ground and lay 1-5 eggs. Hatchlings are 55-60 mm in size. The tortoise is hunted and it is threatened due to forest fires, habitat destruction and fragmentation. Identification: a scute right behind the head is absent and the second scute along the vertebral column is located at the highest point of the shell. Status: IUCN Red list - Vulnerable; India's Wildlife (Protection) Act: Schedule IV. Distribution: restricted to the Western Ghats, in the states of Kerala, Karnataka and Tamil Nadu. Vernacular names: Tamil: Periya amai, Kal amai, Kadas: Vengala amai. Kannada: Betta aame, Gudde aame, Kadu aame. Malayalam: Churrel aama.

If you have seen or heard about this tortoise anywhere in your area, please write or contact us at the address given below and we will get in touch with you soon

Contact: Karthikeyan Vasudevan, Wildlife Institute of India, P.O. Box 18, Chandrabani, Dehradun 248001, Uttarakhand, India
Phone: 0135-2640111 to 115; email: turtle&tortoise@wii.gov.in
Photos and map: V. Deepak