

# Arrowhead Softshell Turtle *Amyda ornata* (Gray, 1861)

## Taxonomy

The Arrowhead Softshell Turtle was originally described as *Amyda ornata* by Gray, 1861. It was formerly considered to be part of *Amyda cartilaginea*, however, it is now considered a genetically distinct species with three subspecies (Fritz et al. 2014), *Amyda ornata ornata* (Gray, 1861), *Amyda ornata jongli* (Praschag & Gemel, 2022), and *Amyda ornata phayrei* (Theobald, 1868).

## Geographic Range

**Assam:** Cachar District, Dhalchera, Phaisen Hills; Kamrup District, Guwahati (Praschag & Gemel 2022).

**Manipur:** Tangjeng Khunou, Bishnupur District; Tallian, Pherzwal district Tallian (Zothanmawia 2022); Tuilen, Tallian, Bungjang, Suahzahau & Tuolbung, Churachandpur District (Linthoi 2013; Habibullah 2016).

**Mizoram:** Dampa Tiger Reserve; Palak Lake (Ahmed & Das 2010; Pawar & Birand 2001); Tuirial River drainage, Ngengpui Wildlife Sanctuary (Praschag & Gemel 2022).

**Nagaland:** Exact location not specified (Chandra et al. 2021).

**Tripura:** Narichera Stream, tributary of Khowai River, North District (Praschag & Gemel 2022).

## Population

There is no information available on the population of this species in the northeastern region of India. It has been only reported from a few specimens.

## Habitat & Ecology

In the dry seasons when the hill streams flow sluggishly, they burrow in silt/sand of the streambed in the daytime (Pawar & Choudhury 2000). Generally found in rivers, marshes, and upland streams with soft bottoms (Linthoi 2013) and rocky bottomed hill streams (Ahmed & Das 2010). They are mainly recorded from river banks, lakes, streams, swamps, and tributaries (Auliya et al. 2016).

## Threats

Overexploitation may be responsible for the fact that recent reports of its occurrence exist only from the headwaters of the major river systems (Praschag & Gemel 2022). Turtles have declined dramatically in the region due to indiscriminate harvest from the wild as well as loss of habitats and also being harbored as pet in public houses as well as being sold as bush meat in the local markets (Kundu et al. 2016) and for pet trade (Rahman et al. 2015).

## Red List Status

**India:** Although there are several threats, the Indian population of this species is 'Least Concern' as the population size reduction (population trends) cannot be assessed due to

unavailability of data on the population trend of the species; geographic range of the species involving extent of occurrence is >20,000 km<sup>2</sup> and the area of occupancy is >2,000 km<sup>2</sup>. But

## References

- Ahmed, M.F. & A. Das (2010).** Tortoises and Turtles of Northeast India: Saving Them from Extinction. Draft Technical Report, Aaranyak, HRCP: 01/2010, Guwahati, India.
- Auliya, M., P.P. van Dijk, E.O. Moll & P.A. Meylan (2016).** *Amyda cartilaginea* (Boddaert 1770)–Asiatic Softshell Turtle, Southeast Asian Softshell Turtle. *Conservation Biology of Freshwater Turtles and Tortoises: A compilation project of the IUCN Tortoise and Freshwater Turtle Specialist Group. Chelonian Research Monographs* 5(92): 1â.
- Chandra, K., L. Kosygin, C. Raghunathan & D. Gupta (2021).** An Overview In: Faunal Diversity of Biogeographic Zones of India: North-East: pp 1-39. Faunal Diversity of North-East Biogeographic Zone of India. Published by the Director, Zoological Survey of India, Kolkata, 720 pp.
- Fritz, U., R. Gemel, C. Kehlmaier, M. Vamberger & P. Praschag (2014).** Phylogeography of the Asian softshell turtle *Amyda cartilaginea* (Boddaert, 1770): evidence for a species complex. *Vertebrate Zoology* 64: 229–243.
- Habibullah, Q. (2016).** Diversity and distribution of turtles in certain districts of Manipur and genetic variation in *Manouria emys* (Schlegel & Müller, 1840,). PhD Thesis. Department of Zoology, Guwahati University, 196 pp.
- Linthoi, N. (2013).** Diversity of turtle fauna of Manipur with special reference to the ecology of *Cuora amboinensis* (Daudin) in Loktak lake Manipur, 226 pp.
- Nath, A., H. Singha & P. Deb (2018).** First report on the presence of *Amyda cartilaginea* (Boddaert, 1770) from Assam, India. *Hamadryad* 38(1): 39–41.
- Pawar, S. & A. Birand (2001).** *A Survey of Amphibians, Reptiles, and Birds in Northeast India*. Centre for Ecological Research and Conservation, 116 pp.
- Pawar, S., M.S. Koo, C. Kelley, M.F. Ahmed, S. Chaudhuri & S. Sarkar (2007).** Conservation assessment and prioritization of areas in Northeast India: Priorities for amphibians and reptiles. *Biological Conservation* 136(3): 346–361.
- Praschag, P. & R. Gemel (2022).** A new subspecies of the Asiatic softshell turtle *Amyda ornata* (Gray, 1861) from its northern distribution range. *Herpetozoa* 35: 81–93.
- Qaiser, H. & D.K. Sharma (2016).** Diversity and Distribution of Turtles in Central valley of Manipur, India. *International Journal of Biology Sciences* 5: 45–52.
- Rahman, S.C., S.M. Rashid, R. Datta, P. Mro & C.J. Roy (2015).** Status, exploitation, and conservation of freshwater turtles and tortoises in Chittagong Hill Tracts, Bangladesh. *Chelonian Conservation and Biology* 14(2): 130–135.
- Zothanmawia, G., H.T. Decemson, V. Mathipi, H.T. Lalremsanga & K.C. Das (2022).** Geographic Distribution: Testudines — Turtles *Amyda Ornata Jongli* (Asian Softshell Turtle). *Herpetological Review* 53(3): 440.
- S. Joel, RHATC Fellow 2023–24, Zoo Outreach Organisation, Coimbatore, TN, India.**