New geographical distribution of Asiatic Softshell Turtle from Mizoram, India

Eight species of trionychid turtle are known to occur in India, including Chitra indica, Lissemys punctata (two sub species punctata and andersonii), Nilssonia gangetica, N. hurum, N. leithii, N. nigricans, Pelochelys cantorii, and Amyda cartilaginea (Frazier & Das 1994; Pawar & Choudhury 2000; Fritz et al. 2014). The Asiatic Softshell Turtle Amyda cartilaginea (Boddaert, 1770) (Testudines: Trionychidae) inhabits freshwater bodies such as lowland rivers, ponds, canals, hill streams, and possibly estuaries (Boulenger 1912; Moll 1976; Ahmed et al. 2009). The first report of the country is from Ngengpui River basin in the extreme southern part of north–eastern India (Pawar & Choudhury 2000). Four species of trionychids (Nilssonia gangetica, N. hurum, Chitra indica, and Lissemys punctata) were reported from the Barak Valley, Assam (Das & Gupta 2011) and
two individuals of *Amyda cartilaginea* were reported from Tripura (North District), Narichera Stream (Das et al. 2016). Recently, this turtle was reported from the Assam-Mizoram border at Dhalchera River, Phaisen Hills, Cachar District, Assam (Nath et al. 2018).

While surveying the herpetofauna of Tuirial River drainage (23.555°N & 92.779°E), Aizawl District, Mizoram, a sub-adult individual of *A. cartilaginea* was captured from the swift flowing water by V.L. Mawia at around 12.30h on 13 December 2019. This specimen represents the second report for the state of Mizoram and fourth for the country, respectively. Based on the presence of a distinct row of tubercles along the anterior edge of the carapace and a head with numerous indistinct yellow spots on an olive background, the specimen was identified as the Malayan Softshell Turtle (*Amyda cartilaginea*: Trionychidae: Trionychinae) (Ahmed et al. 2009).

Although Ahmed et al. (2009) mentioned a greenish or olive carapace with yellow and black speckling, such speckling was not found in our specimen. As the tail extended beyond the posterior border of the carapace, it was probably a male (Ahmed et al. 2009).

The long axis length of the carapace measured 200.3mm, whereas its breadth was 170.3mm. The circumference of the carapace was 170mm and that of the plastron was 160mm. The length of the...
The occurrence of *A. cartilaginea* in the drainage of Tuirial River which flows northward to join Barak River in Cachar plain of Assam suggests the possibility of this turtle species to migrate (or was washed downstream) from Mizoram to the adjacent Assam-Mizoram border as assumed by Nath et al. (2018). The presence of *Amyda cartilaginea* in the Tuirial drainage and Ngengpui River that joins Kolodyne River in the south, however, reveals that this species could be more widespread in other drainages than currently known in the state. In the present study, the specimens were occasionally found in various local markets of Mizoram and in the Aizawl Zoological Park but there is no proper record from where the specimens were collected. This shows that *Amyda cartilaginea* are not very rare species sparsely distributed in the state of Mizoram.

At present, the species is known to be harvested for local, regional, and international consumption (van Dijk 1999). Large numbers are caught for rural consumption, while regional networks of hunters and traders supply restaurants and the international trade (Jenkins 1995; van Dijk 1999). The IUCN Red List of Threatened Species lists this species as Vulnerable (Asian Turtle Trade Working Group 2000). This turtle may also occur in the adjacent states of Manipur and Nagaland bordering Myanmar (Ahmed et al. 2009). Therefore, there is a need for the study of the distribution and population trend of this species to enrich scientific knowledge and to understand its threat status in order to implement conservation measures.

**IUCN Red List:** Vulnerable (Asian Turtle Trade Working Group 2000).


**References**


Boddaert, P. (1770). *Brief van de Kraakbeenige Schildpad*, uit de Verzameling van Wylen den Weledelen Zeer Geleerden Heere Johannes Albertus Schlosser/ Epistola de Testudine Cartilaginea, Descripta atque Accuratissima Icone Illustrata ex


Acknowledgements: We would like to acknowledge Professor G. S. Solanki, Head of Department, Zoology, Mizoram University for allowing us laboratory facilities in this work and the Chief Wildlife Warden, Department of Environment, Forests & Climate Change, Government of Mizoram for issuing the collection permission No. A. 33011/2/99–CWLW/225.

Gospel Zothanmawia Hmar1, Lalmuansanga2, Lalbiakzuala3, H.T. Lalremsanga4 & V.L. Mawia5

1 Field Assistant, 2Research Scholar, 3Associate Professor, Department of Zoology, Mizoram University, Tanhri, 796009, Mizoram.
4Coordinator, Cluster resource Centre under Samagra Shiksha Abhiyan, Tlangnuam. Emails: tgoszhmar@gmail.com, tmuanapunte16@gmail.com, bzachawngthu123@gmail.com, htrlsa@yahoo.in (corresponding author), c.valalmawia@gmail.com