

Past and Present Status of Terrapins in Saidpur-Dinajpur of Bangladesh

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Abstract: Due to restore of terrapin species in the northern regions especially Nilphamari and Dinajpur District of Bangladesh, this is urgent to do more surveys. In these areas, it has many water reservoirs with some forests. Questionnaire and survey methods helped to complete this scientific composition. Results suggest that in wild condition of the above districts there is no trace of terrapins but a terrapin farm of Dinajpur is continuing successfully. In that farm, the available terrapins were *Nilssononia gangeticus* (Indian soft-shell turtle), Indian roofed terrapin (*Pangshura tecta*), and flap-shell turtle *Lissemys punctata* (Plates 1-3). In addition, a Hindu animal hunter brought some *Lissemys punctata* in Dhelapir hat of Saidpur upazila. Out of three species, 2 were in Trionychidae and 1 was in Geoemydidae family.

Keywords: Terrapin, northern regions, Saidpur, Dinajpur, Bangladesh

1. INTRODUCTION

Northern regions of Bangladesh consist of eight districts—Lalmopnirhat, Kurigram, Gaibandha, Rangpur, Nilphamari, Dinajpur, Thakurgaon, and Panchagarh. Due to taking raw meat and similar food stuffs, terrapins could be affected by *Salmonella* (Alderton, 2008). Turtles are essentially important even after death, as their long lifespan and high bone content (Ahsan, 2022). Subsistence hunting is probably the most immediate threat to chelonians in the region (Rahman *et al.*, 2015). To date, 23 freshwater turtle and tortoise species have been recorded from Bangladesh (Rashid and Swingland, 1997; Rashid and Khan 2000; Khan, 2010; Kabir *et al.*, 2009). Turtle farming became a booming aquaculture industry in the past two decades specifically in the southeastern states of the United States of America and across southeast Asia. These farms are currently producing turtles only for the pet trade while commercial trappers remain focused on catching the largest individuals from the wild (Mali *et al.*, 2015). Unrestricted commercial harvest of wildlife can lead to species decline and extinction (Jonzen *et al.*, 2001). Chelonians have been exploited for meat, eggs, and traditional medicine since the 16th century (Klemens, 2000), and more recently for the trade (Alves and Santana, 2008; Chen *et al.*, 2009; Fordham *et al.*, 2007). China in particular is leading the world in turtle consumption as food (Cheung *et al.*, 2006; Gong *et al.*, 2009; Xianlin *et al.*, 2002). Captive breeding of turtle has expanded in the last two decades in China; and other Southeast Asian countries to meet this demand (Haitao *et al.*, 2008; Haitao *et al.*, 2007; Pongtanapanich, 2007). The future of turtle farming is not only important for the economy of the region but also has potential to serve as the foundation for conservation and recovery of wild populations as well (Mali *et al.*, 2015). In Asia, turtle meat is not only a source of protein, it is associated with cultural beliefs such as longevity and healing powers. The objective of this study is to understand the present status of freshwater terrapins in wild and captive condition in Nilphamari and Dinajpur District of Bangladesh.

2. MATERIALS AND METHODS

For this write-up, under the district of Dinajpur—Ramsagor, a terrapin farm, Singra forest, and under Nilphamari district—Nilsagor and Dhelapir hat were the place for surveying.

Ramsagor: Ramsagor is located in the village Tajpur in Dinajpur district and is the largest manmade lake in Bangladesh. It is situated about 8 kilometers south of the Dinajpur town. This lake is about 1079 meters long from north to south, and 192.6 meters wide from east to west. It is created in the mid-1750s, funded by Raja Ram Nath.

Terrapin farm of Jamtoli village: Jamtoli of Dinajpur there is a commercial terrapins farm which was fully surveyed for this work.



Plate1. *Indian soft-shell turtle*



Plate2. *Indian roofed terrapin*

Singra forest: The total area of Singra Forest of Dinajpur is 455 hectares. According to the mouja of the year 1974, 1985, and 2004, this forest has declared a rendered forest, before this, it was denoted as vested forest. In the year 2010 October, 305.69 hectares of this area declared as national park. This forest is under the forest division of Dinajpur. This is situated from the headquarters of the Dinajpur district of Bangladesh (northwest).

Nilsagor: Nilsagor is a famous big pond, which stands at Dhobadanga mouza of Gorgram union about 14 km southwest of Nilphamari district of Bangladesh. After the independence of Bangladesh, this dighi was renamed as Nilsagor. The area of this dighi is 21.449 hectares and depth ranges from 7-12 m. Every year many tourists and various kinds of migratory birds come here. It is well-known as a recreation zone and a picnic spot.

Dhelapir hat: The area of Saidpur upazila is 121.68 sq km, located in between 25°44' and 25°52' north latitudes in between 88°51' and 89°01' longitudes. Since Saidpur is small upazila under Nilphamari district of Bangladesh, but this place is famous for many renowned places where Dhelapir hat (market) (previously called Porarhat mela) is one of them. This hat was started from the year 1983. This place is mainly located in Bothlagari union. Every Friday and Tuesday are two major days of this market. Local people whose main job is cultivation and from the Saidpur town or other adjacent areas, come here for selling or buying many things like handicrafts, plants, traditional medicines, livestock, etc. There are many beels, haors, and baors, so aquatic birds like ducks and geese are available. Sometimes, freshwater terrapins are sold in this market especially *Lissemys punctata*.



Plate3. *Flap-shell turtle*

Oral communication with the personnel from the above places helped a lot on the past and present status of terrapins. Some tribal people were attached to deliver much information especially the traditional uses of terrapins' flesh.

3. RESULTS AND DISCUSSION

30 feet x 30 feet x 6 feet is enough for storing 3000 terrapins. Rice, bread, and nourishing feed are sufficient for its diet. In a year, it lays 15-18 eggs. Freshwater terrapins get mature within 30-36 months, and the breeding season is November-December. Hatching period is 3 months. Within 2.5-3 years, these terrapins are suitable for meat consumption. For proper breeding, it is needed to maintain male-female ratio, 1:10. Temperature for terrapin housing will be 25°C (Alderton, 2008). Two races

are recognized on the basis of colour in the case of *Lissemys punctata*, Indo-Gangetic Mud turtle or flap-shell, *L. punctata punctata* has large yellow spots on the head and carapace, sometimes yellow forms a reticulation. Peninsular mud turtle or flap-shell *L. p. granosa* distinguished by the absence of the yellow spots and the presence of three black streaks on the greenish head (Daniel, 2002). Eight species of terrapins were recorded in Chittagong Hill Tracts including *Lissemys punctata* for the year 2011-2015 (Rahman *et al.*, 2015). Tribal villages are located within this protected area, the Forest Department of Bangladesh exercises little jurisdiction here. In fact, they eat terrapin for relieving heart-related problems. Within the agriculture landscape, patches of riparian forest have been left by the ethnic people to retain water and to supply timber products for their household use (Rahman *et al.*, 2015). *Lissemys punctata* is found in low lying areas with ponds and paddy fields in villages adjacent to towns, and is probably the most common and widespread turtle species in Bangladesh (Rashid and Rahman, 2014).

4. CONCLUSIONS

Due to religious belief, Hindu caste slaughter terrapin as their food, so the number of the species are decreasing in wild. Bangladesh Wildlife Act or Forest Department does not allow any reptile farms in any personal interests. Since some terrapin farms have been established illegally but finally Hindu caste collect those terrapins as meat. Only motivation for them, and adequate captive breeding could recall the availability of this animals in the country.

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