

# An observational note on anomalous mating behaviour of *Duttaphrynus melanostictus* (Schneider, 1799) at human habitation, Faridpur, Bangladesh

Naim Khandakar\*, Delip K. Das, Md. Ashik Jahan Galib<sup>1</sup>, Kamrun Nahar Jeny, Md. Soab Ali

Department of Zoology, Jagannath University, Chittaranjan Avenue, Dhaka-1100, Bangladesh

<sup>1</sup>Wildlife Conservation Society Bangladesh Program, Dhaka 1205, Bangladesh

### Corresponding author: naim.jnu.2014@gmail.com

#### **Received**: 18 May 2019 | **Accepted**: 01 July 2019 |

**How to cite**: Khandakar N, Das DK, Galib MAJ, Jeny KN, Ali MS. 2019. An observational note on anomalous mating behaviour of *Duttaphrynus melanostictus* (Schneider, 1799) at human habitation, Faridpur, Bangladesh. J New Biol Rep 8(2): 145-147.

#### ABSTRACT

Duttaphrynus melanostictus is commonly found in near ponds, human habitations, cultivated fields, mixedevergreen and deciduous forests of plains, hills and coastal areas in Bangladesh. They are active at night and during day they hide under rocks. This article is the first observation on unusual mating behaviour of *D*. melanostictus at a human habitat from Bangladesh, based on a field observations. This observation exhibits that *D. melanostictus* has an unusual mating behaviour and to comprehens their unusual mating behaviour, more studies are required.

Key words: Duttaphrynus melanostictus, unusual mating behaviour, first observation, Bangladesh.

The Common Toad *Duttaphrynus melanostictus* is the commonest amphibian and found throughout Bangladesh from mainland to coastal areas, offshore islands and hill country as well as in all terrestrial forest ecosystems (Khan 2015).

On 7th November 2018, a field visit was carried out to conduct an amphibian's survey at Duair Village (23°24'48.0"N, 90°04'14.2"E), Bhanga Upazila under Faridpur District, Bangladesh (Fig. 1). A Common Toad *D. melanostictus* male was chasing to a female for mating. The key observations were made by the naked eye, 3 m away from the toads to experience the unusual mating behaviour and for taking photographs by mobile phone to document the key observation. In between 21:23 hr to 21:47 hr, while noting observation no disturbances were made. Male *D. melanostictus* jumped towards on dorsal side of the female a first attempt and stayed about few seconds for holding with front finger limbs and then male was rolled with female on ground and at a certain moment male moved away from the dorsal side of the body to ventral side of the female. After few seconds male tried for copulating during this time female freely cooperated with male action on the same position and female did not tried to escape from the male.



Fig. 1. Mating place of Duttaphrynus melanostictus



Fig. 2. Unusual mating behaviour of Duttaphrynus melanostictus

During this time dorsal side of female was totally grounded and hind limbs freely disposed, clear actions given in the Fig. 2 and male stayed on the female about 24 minutes. Smaller males are typically rejected by females by larger males during violent fights over females (Arak 1988; Davies and Halliday 1979; Lamb 1984). In general male anurans are while courtship and mating time energy is highly exhibits due to predation risk (McCauley et al. 2000). An unusual type of mislead communication between two amphibian species belonging to two different families of Duttaphrynus melanostictus and Polypedates cruciger in Sri Lanka it could be a mistaken communication of both species (Edirisinghe and Amarasinghe 2009). So, further studies are needed on matting patterns of D. melanostictus to comprehend their natural history.

## ACKNOWLEDGEMENTS

We express our sincere thanks to Arif Hossain for his encouragement in the field while recording the observations and profoundly thankful to Md. Salauddin, Department of Geography & Environment Science, Jagannath University, Dhaka, Bangladesh, for his support to produce the study site map using ArcGIS software.

## REFERENCES

- Arak A. 1988. Female mate selection in the natter jack toad: active choice or passive attraction? Behavioral Ecol Sociobiol 22(5): 317–327.
- Davies NB and Halliday TR. 1979. Competitive mate searching in male Common toads, Bufo bufo. Animal Behaviour 27: 1253– 1267.
- Edirisinghe WGM and Amarasinghe AAT. 2009. An unusual mislead communication behaviour of Duttaphrynus melanostictus (Schneider, 1799) (Amphibia: Bufonidae) and Polypedates cruciger Blyth, 1852 (Amphibia: Rhacophoridae) at a human habitation in Sri lanka. Taprobanica 1(1): 39-42
- Lamb T. 1984. Amplexus displacement in the Southern toad, Bufo terrestris. Copeia (4): 1023–1025.
- Mc Cauley SJ, Bouchard SS, Farina BJ, Isvaran K, Quader S, Wood DW, St Mary CM. 2000. Energetic dynamics and anuran breeding phenology: insights from a dynamic game. Behavioral Ecol 11: 429–436.
- Khan, M.A.R. 2015. Wildlife of Bangladesh: Checklist-cum-guide. M.J. Alam, Chayabithi, Dhaka, Bangladesh. 568pp.