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Research Article

A NEW VARIETY OF FRESHWATER SNAIL, *THIARA SCABRA* VAR. *CHOUBISAI* FROM RAJASTHAN, INDIA

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ABSTRACT
A new variety of freshwater snail, *Thiara scabra* var *choubisai*, recovered from a confluence (Triveni sangam) where three rivers, Jakham, Mahi and Som meet together at a holy place "Beneshwar Dham" in Banswara district, Rajasthan, India is reported. This variety has characters similar to *Thiara scabra*, like spines and stratification on the shell belonging to the Thiaridae (Melanidae) family of phylum mollusca and has not been reported previously. This variety was detected by first author, hence named as *Thiara scabra* var. *choubisai*.

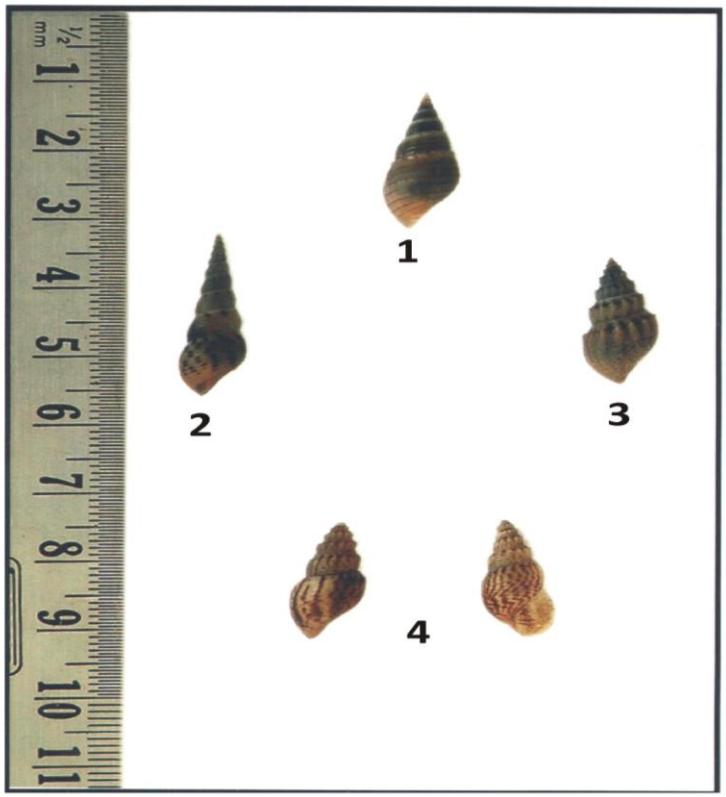
Key Words: *Confluence, Freshwater Snails, Rajasthan, Thiara Scabra, Triveni Sangam*

INTRODUCTION
It is well known that molluscs are good bio-indicators for the palaeo-environment and water quality (Harman, 1974; Clarke, 1979) as well as for lotic and lentic aquatic ecosystems (Choubisa, 1992; Choubisa and Sheikh, 2013a).These are also responsible for spreading of many dreaded trematodiasis in man and their domestic animals as these are intermediate hosts of many digenetic trematode parasites (Erasmus, 1972; Cheng, 1973; Choubisa and Sharma, 1986; Choubisa 1991; Choubisa and Sheikh, 2013b). Therefore, several workers surveyed fresh water gastropods (snails) and reported from various geographical regions. From Rajasthan, Ray and Mukherjee (1963) reported various snail species. Choubisa (1991 and 1992) has also reported gastropods and pelecypods of lentic and lotic habitats of southern Rajasthan and traced out some new records of snail species, *Faunus ater* (Linnaeus), *M. pyramis* (Hutton), *Thiara scabra* (Muller), *M. striatella tuberculata* (Muller), *Thiara* (*Tarebia*) *lineata* (Gray). Survey of snail inhabiting large perennial confluence (Sangam) environment has never been done so far in Rajasthan.

MATERIALS AND METHODS
A survey was done (2011-12) for snail hosts of larval trematode parasites in southern Rajasthan. During the survey, especially "Triveni Sangam" (confluence) of Beneshwar Dham of Banswara district, Rajasthan (India) where three rivers (Jakham, Mahi and Som) meet together to form a new ecosystem, confluence (Sangam), two snail species were recovered and one of them was *Thiara* (*Tarebia*) *lineata* and other was unknown snail. Further this unknown snail was examined according to Ray and Mukherjee (1963), Tonapi (1980) and (Ramakrishna and Dey, 2007) to check if it had been reported earlier.

RESULTS AND DISCUSSION
From Triveni sangam (confluence) two forms of snail were recovered. One of them was identified as *Thiara* (*Tarebia*) *lineata* (Gray, 1828) (Figure 1) belonging to the family Thiaridae (Melanidae) of phylum mollusca. The other unknown form was morphologically almost similar to the snail species *Thiara scabra* (Muller, 1774) (Figure 3). *T. scabra* is characterized by elongated, turreted shell, whorls regularly increasing in size, spire as high as body whorl, sutures distinct, whorls often shouldered above and rounded below the row of spines, sculptured with vertical ribs bearing prominent spines directed obliquely outward, surface with rough spiral striations, on the body whorl near the umbilical region striations form strong ridges, pale brown in colour. This species prefers slow moving water but occurs in sslow or fast moving water as well as stagnant water (Ramakrishna and Dey, 2007). The new unidentified

snail has a shell with vertical ribs bearing prominent spines, strong ridges, and vertical brownish black stripes on a light yellow shell surface (Figure 4). Such striations are also observed in *M. striatella tuberculata* (Figure 2) but the pattern of stripes is not similar to the new snail variety. The striations and colour are the differentiating/deviating characters from *T.scabra*.



Figures 1-4:

1. ***Thiara* (*Tarebia*) *lineata* (Gray)**
2. ***Melania striatella tuberculata* (Muller)**
3. ***Thiara scabra* (Muller)**
4. ***Thiara scabra* var *choubisai* (New variety)**

This snail also exhibits habitat specificity as the specimens were found only in the confluence (Triveni sangam). Because of its resemblance with *T.scabra* this snail was identified as a new variety and named after the first author who recovered it as *T. scabra* var. *choubisai*.

To the best of our knowledge this variety of snail has not been reported earlier. The specimens of *T. scabra* var. *choubisai* have been deposited in the departmental museum for record.

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