

## FURTHER OBSERVATIONS ON THE MOLLUSCS OF THE PUNJAB SALT RANGE.

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Our recent paper on the mollusca of the Salt Range (*Rec. Ind. Mus.*, XXV, pp. 387-398) was founded on a collection made by Dr. Sunder Lal Hora in the part of the range which lies east of the Indus. Dr. Hora has recently visited the districts on both sides of that river and has brought back a much larger collection, which enables us to correct and supplement our former report. He found several species which he did not find on his previous tour. Of these the most noteworthy are the following :—

*Bithynia tentaculata* (Linn.). In great abundance at Pail, Noshera (Salt Range) and other places on the east side of the rivers ; very small but otherwise typical.

*Digoniostoma cerameopoma* (Benson). Several shells with specimens of *Amnicola* (*Alocinma*) *orcula* (Benson) from places on both sides of the Indus.

*Buliminus* (*Subzebrinus*) *rufistrigatus* (Reeve). A single shell from the eastern part of the range.

*Limnaea gedrosiana* A. & P. Several typical specimens from the Namal reservoir on the east side of the Indus.

The existence of *B. tentaculata* and *L. gedrosiana* on the east side of the Indus and south of the Himalayas is remarkable.

A reference to the occurrence of *Vivipara bengalensis* f. *halophila* in the Salt Range should have been given in our former paper. See Annandale, *Rec. Ind. Mus.* XXII, p. 277.

In addition to these species Dr. Hora obtained a large series of living and preserved specimens of the form we called *Eulota pentepotamiensis* and also another of our *Buliminus dextrosinister*, on the variation of which Professor P. C. Mahalanobis contributed an interesting note (p. 399). The former specimens prove that we were wrong as to the position and identity of our so-called *Eulota*, which is a Zonitid after all and identical with *Bensonia jacquemonti* (v. Martens).

The second series of *B. dextrosinister* is of great interest. It comprises a very large number of shells and specimens in spirit, including some from the area west of the Indus. The specimens of this species from some localities on both sides of the Indus seem to be dextral without exception, while among those from other localities sinistral individuals predominate.

### ***Bensonia jacquemonti* (von Martens).**

1908. *Bensonia jacquemonti* (in part) and *Bensonia wynnii*, Blanford & Godwin-Austen, *Fauna Brit. Ind.* Moll. I, pp. 174-176, fig. 62.

1923. *Eulota pentepotamiensis*, Annandale & Rao, *Rec. Ind. Mus.*, XXV, p. 389, pl. ix, figs. 1-3.

Examination of living and preserved material proves that this is no Helicid, in spite of its shell, while the very large series of specimens

now before us shows that our *Eulota pentepotamiensis* is a mere synonym of *Bensonia jacquemonti* and also that there is a complete transition between the two forms included in our synonymy. The confusion arose largely because two quite distinct species have been described under the name *jacquemonti*, viz., Nevill's *kurramensis* and the species here discussed. The anatomy agrees in general with Godwin-Austen's figures of that of *B. jacquemonti* var. *kurramensis*.<sup>1</sup>

The mucus-pore at the apex of the foot is relatively small and has a circular tumid lip but no overhanging process in the living animal. In preserved specimens, however, a process is apparent. In the radula the number of teeth present in a transverse row is fewer than in the type-species of *Bensonia*. The relative lengths of the structures in the distal portion of the genitalia seem to vary according to their seasonal development.

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<sup>1</sup> Godwin-Austen, *Land and Freshwater Moll. Ind.* II, pl. xcv, fig. i (1899),