

ON A NEW FOSSIL UNIONID FROM THE INTERTRAPPEAN BEDS OF PENINSULAR INDIA. BY B. PRASHAD, D.Sc., *Zoological Survey of India, Calcutta.* (With Plate 12, figs. 1, 2.)

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WHILE examining the fossil Indian Unionidæ in the collection of the Geological Survey of India I found a well preserved specimen labelled "*Pisidium medlicottianum*, Hislop" and collected at Goraha, Narbada from the Intertrappean beds of Peninsular India. This specimen does not belong to the genus *Pisidium* and has no relationship with *P. medlicottianum*, Hislop,<sup>1</sup> but is a true Unionid and should be assigned to the genus *Lamellidens*, Simpson. The shell is probably a young one, but is of particular interest in that it is the first fossil representative of the genus *Lamellidens* hitherto recorded. The fossil belongs to a new species, and I have great pleasure in associating it with the name of Mr. E. W. Vredenburg of the Geological Survey of India who has given me all facilities for going through the fossil Unionidæ under his care, and in recognition of the help he has given me in looking up the geological literature on the subject.

The genus *Lamellidens* is represented by a large number of species in South East Asia and is one of the dominant genera of Unionidæ in India. The find of a fossil specimen from the Intertrappean horizon is specially interesting in that it throws some light as to the probable time when the genus *Lamellidens* was evolved from the genus *Unio* (*sensu lato*). It also shows the direct relationship of the freshwater fauna of the late cretaceous times in Peninsular India and that which still occupies the same territory. *L. vredenburgi* from its very primitive characters appears to come near the ancestral species from which the other more highly specialized present day forms have been evolved.

LAMELLIDENS VREDENBURGI sp. nov.

Pl. XII, figs. 1, 2.

Shell elongate, subrhomboidal, fairly thick, somewhat convex, subequilateral with an extremely narrow posterior wing, greatly

<sup>1</sup> Hislop, *Quart. Journ. Geol. Soc., London*, XVI, p. 181, pl. x, figs. 65 a-c (1860).

depressed below, umbones rather imperfectly preserved, but distinctly showing their somewhat elevated character, eroded; surface with fine concentric ridges all over the surface; posterior ridge nearly straight, high, broadly rounded to the more or less regular curve of the posterior margin; anterior side somewhat angulate above, rapidly curving in after a short straight course to the ventral surface which is slightly curved; upper surface curved but having a distinct angle of  $130^\circ$  about the middle in the umbonal region. Hinge unknown.

The unique type-shell measures 25.1 mm. in length by 15 mm. in height and 7.3 mm. in maximum thickness.

The above description is drawn from the single nearly perfect shell consisting of both the valves united, and numbered K1-464 in the registers of the Geological Survey of India from Goraha, Narbada.

*Remarks.*—The species, though nearly related to the living forms *L. marginalis* (Lam.) and *L. corrianus* (Lea)<sup>1</sup>, differs from either in shape, in the umbones being more prominent and the upper surface being more angulate. As already remarked it seems to come very near the ancestral form of the living species.

<sup>1</sup> See Simpson, *Descriptive Catalogue of the Naiades*, Detroit, Michigan, pp. 1166, 1175 (1914), and Annandale and Prashad *Rec. Ind. Mus.* XVIII, p. 59, pl. iii, fig. 11.

## EXPLANATION OF PLATE XII.

### FOSSIL UNIONIDÆ FROM INDIA AND BURMA.

#### *Lamellidens vredenburgi* Prashad.

- FIG. 1.—Dorsal view of the type-specimen.  $\times 1\frac{1}{2}$   
 FIG. 2.—Ventral view of the same.  $\times 1\frac{1}{2}$

#### *Indonaiia glyptica* Vredenburg and Prashad.

- FIG. 3.—Left valve of the type-specimen.  
 FIG. 4.—Left valve of a young specimen.  
 FIG. 5.—Left valve of a young specimen ( $\times 2$ ), showing the umbonal sculpture.  
 FIG. 6.—Photograph of a young specimen from above, showing the umbones and the ligament.  
 FIG. 7.—Fragment of a right valve, showing the cardinal and a portion of the lateral teeth.  
 FIG. 8.—Fragment of a left valve, showing the hinge.  
 FIG. 9.—An incomplete left valve, showing the lateral tooth.

*Parreyssia latouchei* Vredenburg and Prashad.

FIG. 10.—Left valve of the type-specimen.

FIG. 11.—Left valve of a large specimen, showing the remains of sculpture.

FIG. 12.—Left valve of a rather incomplete young specimen ( $\times 2$ ), showing the sculpture on the surface.

FIG. 13.—Photograph of the type-specimen from above, showing the umbones and the ligament.



1.



2.



3.



4.



5.



7.



6.



9.



11.



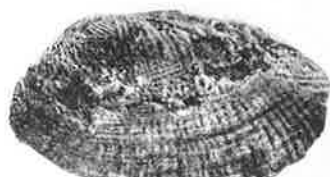
10.



8.



13.



12.

Photographs by R.C. Mandal.

Photographs, Survey of India Office, Calcutta, 1923.