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The Morphology and Function of the Upper Valve of Vaccinites vesiculosus (Woodward)

of

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Abstract: The evolutionary transformation of the upper valve (UV) to a probable particle filter system in some hippuritid genera belongs to the most drastic changes in pelycipod shell structures. The basic architecture of this product is well known since long times. Again discussed is the functional role of the canal system. The bottom of the canals is very smooth. The canal system of Vaccinites vesiculosus is completely roofed by a particular graceful sieve. A water exchange between the canals did not exist. The uppermost part of the upper valve (the sieve) most probably was an endoskeleton. The upper valve was not accreted with the lower valve. Premortal damages of the canals and sieves could be repaired. It is dicussed whether the oscules E and S really were places of exhalent currents. Early ontogenetic growth stages of the canal system are unknown. The pattern of the canal arrangement always is an individual one.



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