

Histoarchitectural features of the hepatopancreas of the amazon river prawn *Macrobrachium amazonicum*

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In decapod crustaceans, the digestive gland is concerned with the digestion, absorption of nutrients, the storage of reserves and excretion. Second-generation *Macrobrachium amazonicum* produced from wild broodstock collected in the state of Pará in Brazil were used in this study. Thirty adult male and female *M. amazonicum* were selected and randomly transferred to five experimental units for macroscopic and microscopic studies. The hepatopancreas of *M. amazonicum* is a large, yellowish-brown, compact organ, which occupies much of the cephalothoracic cavity. It has right and left halves that are enclosed together in a laminar connective tissue capsule, and at the same time they are separated by an interstitial connective tissue. The two halves are thereby called the right and left hepatopancreatic lobes. The principal tubule gives rise to four secondary tubules at each hepatopancreatic lobe. The morphological and functional unit consists of a blind-ended hepatopancreatic tubule, considered in the present study as the hepatopancreatic lobule. Each hepatopancreatic tubule can be subdivided into distal, medial and proximal zones. The hepatopancreatic tubule is lined by a pseudostratified epithelium that consists of five different cell types, which include the E-cell (embryonic), F-cell (fibrillar), B-cell (blisterlike), R-cell (resorptive) and M-cell (midgut or basal). It is important to emphasize that the function of each cell type in the hepatopancreas during the digestive cycle is not yet established for decapods.

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