

Histological aspects of the stomach of the marsh deer

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The marsh deer (*Blastocerus dichotomus*) is the largest South American deer. They are an endangered specie that have suffered from uncontrolled hunting and habitat destruction, such as hydroelectric plant, resulting in small, greatly-fragmented populations. For its control this setting is fundamental carry out studies that permit the best knowledge of this specie and the understanding of his inter-relations with the environment, collaborating with future inquiries, mainly the ones related to the rational management of this deer. The aim of this study is describe the *B. dichotomus* gastric chambers by light microscopy. In the occasion of the Porto Primavera hydroelectric plant flooding, ten adult *B. dichotomus* came to death in quarantine period. For this study samples of the dorsal, ventral and medium portion of the rumen; medium portion of the reticulum, omasum and abomasum were collected. This samples were fixed in buffer solution of formaldehyde 10% and washed in alcohol 70% before historesin (Historesin, Leica – Germany) enclosure. After this, the microtomy was proceed in automatic microtome (Leica, RM2155) and 3 to 5 µm thickness sections were obtained and stained with hematoxilin/eosin and toluidine blue. The preparations were registered) for morphological® by picture in light microscope BX-50 (Olimpus analysis. Microscopically, the rumen presents mucosa formed by conical papillae covered by epithelium pavementous stratified keratinized, but prominent in the papillae of ventral sac. It shows discrete mucosa of musculare tunic, besides characteristic submucosa end muscular tunics. The reticulum has mucosa covered by epithelium pavementous stratified keratinized with predominance of keratin in the mucosa apex and the muscular mucosa tunic along with its smooth muscle is present. The omasum, likewise the reticulum, has the mucosa covered by epithelium pavementous stratified keratinized, with predominance of keratin in the apex of the papillae. The abomasum is characterized by mucosa covered by epithelium prismatic simple with glands showing two types of well defined cells, the chiefs and parietal. The rumen mucosal epithelium well developed and the presence of high quantity of chief cells in the abomasum mucosa and indicates a special adaptability presented by this deer; as the samples analyzed in this work was collected in the winter, epoch of few sprouts, probably the morphofunctional characteristics related to the consumption of grass or rougher fodders prove the high grade of nutritional adaptation of these animal, that are frequently classified as sprout eaters.