

Gross anatomy 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 species that have suffered from uncontrolled hunting and habitat destruction, such as hydroelectric plant, resulting in small, greatly-fragmented populations. To control this scene, studies that allowed the best knowledge of the species and the understanding of its inter-relations with the environment are fundamental, 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 macroscopic anatomy. In the occasion of the Porto Primavera hydroelectric plant flooding, ten adult *B. dichotomus* came to death in quarantine period. Its gastric cavities were analyzed by visual inspection and dissected. The gastric chambers were individualized and its extern and intern morphology were registered, beyond its topography and inter-relationships. Macroscopically, this wild ruminant has four gastric chambers: rumen, reticulum, omasum and abomasums. Macroscopically results showed that this ruminant has four gastric cavities: rumen, reticulum, omasum and abomasum. The rumen has little prominent external grooves that is internally covered by papillae of several sizes and shapes, and prominent pillars. The reticulum is a pyriform cavity, more developed than the omasum. Internally, the reticulum has a mucosa covered by for to six-sided polyhedral structure, a little prominent and covered by papillae. The omasum has a pyriform shape, and internally it has thinner folds, structured in three sizes and covered by papillae. The abomasum, long-shaped, like the unicavitary stomach, which is internally covered by mucosa folds, slightly wrinkled. There is also the torus pyloricus, a little prominent and rounded. The following macroscopic characteristics of the mash deer gastric chambers are: larger dimension of the reticular chamber when compared with the omasal chamber; little depth of the reticular crests beyond its rare subdivision; presence of sinuous and small abomasal folds that allow classify them as browser's ruminant or selectors. However, the presence of other peculiarities in his gastric chambers, like high concentration of papillae in the rumen ventral sac and its absence in the ruminal pillars could consider these animals as grass consumer ruminant, verifying that in its peculiar digestive morphology, 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.