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AN METHOD TO DEFINE AND CLASSIFY NATIVE PASTURES OF THE NORTHERN PANTANAL WETLAND USING SATELLITE IMAGES

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The Pantanal Wetland presents a diversity of native pastures which are highly variable in time and space. Livestock management practices are strongly determined by flood pulse and landscapes composition. Environmental planning and sustainable management schedules require inventories and a classification of landscapes types, as well as native pastures typifying at large-scale. This study aims the application of a landscapes type classification method based on humidity of the substrate using satellite images and integration of information sources (flights, fieldwork, historic maps, bibliographic research). Firstly, the landscapes types were classified as: 1- usually-dry, 2- usually inundable (flooding up to 6 months), 3- usually wet (flooding from 8 to 12 months) and 4- permanent water bodies. Phytophisiognomies were considered in each class: forests areas, woodland savannas and open grasslands. Water bodies were constituted by "corixos" (small floodplain channels), fresh water ponds and rivers. Natives pastures were present mainly on usually-dry and usually inundable types of woodland savannas and open grasslands. These areas may be dominated by native forage species such as Paspalum plicatulum, Andropogon hypogynus, Reimarochloa spp. and others. However, in the last three decades, some landscapes classes have have been altered for cattle ranching intensification through the introduction of cultivated African grasses for a species. In addition, it has been observed that the open grassland areas have been changed remarkably as a result of climate variations and anthropogenic activities. Large-scale studies are need for evaluate and map these areas to implement sustainable management strategies, as well as to support public polices.