

ENVIRONMENTAL CHANGES IN THE MEGAFAN OF THE NEGRO RIVER DURING THE QUATERNARY, IN SOUTHEASTERN PANTANAL

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ABSTRACT: The Negro Fluvial Megafan (NFM) is located in the transition between the Maracaju-Campo Grande Plateau and the Pantanal Sedimentary Basin (PSB), with a drainage area of approximately 34,948 km². It is a fluvial depositional system that has been constructed by the Negro River on the southeastern edge of the PSB from the Pleistocene to the present. The river flows westward, which is the opposite direction to the dip of the layers of the Paleozoic and Mesozoic units of the Paraná Basin, so that it can be classified as an obsequent river. The Negro River integrates the Upper Paraguay River Basin, its surface presents geomorphological features and current and relict drainage systems. In this sense, the objective of this work was to characterize the environmental changes in the NFM emphasizing the aspects of the phytophysiology in the compartmentalization of the relief in the Quaternary. The area consists of the following Quaternary units: Pantanal Formation, alluvial and colluvium facies (Pleistocene) and alluvial deposits (Holocene). From the end of the Pleistocene to the present the environmental changes occurred in the Pantanal have been caused by the climatic changes of each period, caused mainly by paleohydrological aspects. Thus, the depositional geofoms that emphasize the environmental changes undergone in this megafan are highlighted, such as: depositional lobes (ancient, pre-current and current), incised plain, paleochannels, meanders belt and avulsion processes occurred mainly in the current lobe. The vegetation has become an important factor for the understanding of the types of environments found in the Pantanal associated with their diverse physiognomy. The predominant phytophysionomies of the NFM is the Cerrado and the *Fabaceae*, which are the main floristic species found in this megafan that are found in the three types of depositional lobes. However, some species were found exclusively in single compartments, such as: *Commelina erecta* (Andaca), *Cyperius luzulae* (Tampão), *Anandenanthera* (Angico) found in the ancient lobe; in the pre-current lobe were found the species: *Xilopia aromática* (Pimenta-de-macaco), *Buchenavia tomentosa* (Tanimbuca tarumarana), *Machaerium hirtum* (Jacaranda de espinho); in the current lobe the species: *Psittacanthus*, *Birsonina cydoniifolia* (Murici do brejo), *Poligonium acuminatum* (Erva de bicho) and in the incised plain the species: *Handroanthus heptaphyllus* (Ipê roxo), *Cecropia pachystachya* (Embauva), *Melochia villosa* (Malva). Considering that the distinct morphological evolution of the depositional lobes and the incised plain provides the different plant species in these areas. It is also emphasized the multidisciplinary character (Geology, Geomorphology and Botany) and the use of geotechnologies to understand the NFM's landscape dynamics.

KEYWORDS: PHYTOPHYSIOGNOMY, NEGRO MEGAFAN, QUATERNARY ENVIRONMENTAL CHANGE.