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Typology of North Mexico playas Typologie des sebkhas du Nord Mexique Tipología de las playas del Norte de México

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The main use of the playas in the Mexican part of the Chihuahuan desert (114 000 km²) consists of extensive cattle rearing. The Mapimi biosphere reserve (26°41′N,103°44′W) attempts to provide solutions of long term conservative management of this particular ecosystems. These solutions may not be appropriate if a regional typology of playa is not well-established. A review of existing regional classifications established elsewhere emphasizes, climate, size, shape or salinity as alternative main criteria. The purpose of the present work is to provide a regional classification for North Mexico Chihuahuan desert and compares it to existing ones. Special attention is conceded to incidences above management rules that should be modulated by playas types, leading to a few regional schemes of recommendations.

17 playas of the Mexican part of the Chihuahuan desert have been characterized using surface features descriptions and soil sampling (surface and 20 cm depth) along representative transects. The 917 data obtained have been processed by CPA to obtain a classification according to quantitative and qualitative criteria.

A geomorphologic classification is yield from a few consistent criteria: presence (or not) of saline crusts with sodium chloride, gypsum or sodium carbonate salt in soils. Presence (or not) of an upper playa. Groups are spatially correlated and may be linked to geological criteria. Slopes of the lower parts of the basin range and depths of water bearing layer are identified as the main causes of differentiation between these playas. Therefore, the distribution is mainly attributed to recent spatial variations in subsidence ratios, in accordance with the limits of tectonic provinces. Five principal playa-types are deduced with their corresponding management limits.

Keywords : playas, Mexico, Chihuahuan desert, soil salinity, land management Mots clés : sebkhas, Mexique, désert de Chihuahua, salinité des sols, gestion des sols

Palabras claves: playas, Mexico, desierto de Chihuahua, salinidad de suelos, gestion de

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