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# Structural Analysis of two Tamaulipan Thornscrub Areas in Northeastern Mexico

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**Abstract**

The composition, structure and biological diversity in two areas in the Tamaulipan thornscrub of Northeast Mexico were evaluated (hill and plain) to asses the main differences or similarities of two plant communities. The lower height thornscrub is located on hillocks, where the soil is shallow, stony and the availability of water in the area is limited to the rainy season in the region, while the greater height thornscrub is located in an area of deep soil and has an intermittent water ow which appears in rainy seasons and forms a temporary body of water. To evaluate tree and shrub vegetation, three sampling plots of 40 m × 40 m where delimited in each area for the purpose of calculating the importance value index, diversity (alpha and beta) and the Soresen similarity index. A total of 17 species, 11 families and 15 genera were registered. The most abundant family was Fabaceae with 7 spp. The rest of the families presented only one species. The greater high thornscrub area showed 14 species, while the lower height thornscrub showed 7 species only. The evaluated communities have low similarity (19 %). According to the results of the present investigation, it is concluded that the two types of thornscrub present in the study area show significant differences between them in density, canopy area, species richness and diversity. Likewise it is concluded that 4 species of all 17 present are shared in both study areas The plant community present in plain records higher values of height, canopy area, richness and diversity.

**Keywords:** Abundance, dominance, frequency, hill, IVI, plain, Sorensen

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