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BIOCHEMICAL PECULIARITIES OF DOMINANT PLANTS FROM DIVERSE HABITATS IN THREE EGYPTIAN PROTECTORATES

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ABSTRACT

Fifteen dominant plant species were collected from diverse habitats (saline, wetland,and xeric) that are located in Qaroun Lake Protected Area (QLPA), Wadi El Rayan Protected Area (WRPA), and Wadi Degla Protected Area (WDPA).

Dominant plants in saline habitats maintain water balance in their tissues by increasing relative water contents and succulence degrees.Dominant plants surviving under various stresses (salinity,drought,and anaerobiosis) tended to accumulate total soluble carbohydrates, total nitrogen,and total ash; as organic osmolytes. Moreover, HPLC-RI analysis detected ten sugars,two sugar alcohols,and two sugar acids .

Key words: ash, carbohydrates, habitats,halophytes, helophytes, dominant plants, phytosynthetic pigments, ,sugars and derivatives, xerophytes.