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On the Current and Restoration Conditions of the Southern Iraqi Marshes: Application of the CCME WQI on East Hammar Marsh

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ABSTRACT

Water quality of the East Hammar marsh after restoration was assessed by using the Canadian Council of Ministers of the Environment Water Quality Index (CCME WQI). The model was applied in two approaches based on the historical data and the CCME aquatic life guidelines as objectives. Variables included in the index calculation were Water Temperature, Dissolved Oxygen, Salinity, pH value, Total Nitrogen, Ammonia, Nitrate, Phosphorus and Sodium. The CCME WQI analysis in both approaches reflected that water quality of the East Hammar marsh is rated as poor based on 2005-2006 data, meaning that the conditions of the marsh are often depart from natural or desirable levels particularly in respect to sodium and nitrogenous compounds; it simply has not recovered yet. The results reflect that the marsh area is still far from the current guideline criteria and, too far from restoration.

KEYWORDS

WQI, Iraqi Marshes, Restoration, Nature Iraq

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