Poll Res. 40 (4) : 1124-1131 (2021)

ISSN 0257–8050

VEGETATION AND ENVIRONMENTAL FACTORS OF THE SOUTHERN MARSHES OF IRAQ DURING FEBRUARY, 2008

JIHAD M. AL-ZEWAR[1], HAIDAR SH. DARWISH[1] AND TAHA Y. AL-EDANY[2]

[1]*Marine Science Center, University of Basra, Basra, Iraq*
[2]*College of Agriculture, University of Basra, Iraq*

(Received 31 January, 2021; accepted 24 March, 2021)

ABSTRACT

Water, sediments and aquatic macrophytes were collected from 13 fixed stations in February, 2008: two stations at Hor Al-Hammar, two at Hor Al-Chibayish, eight at Hor Al-Huawiza and one near Al-Sindebad Island at the junction of the Tigris and the Euphrates. Physical and chemical properties of water and sediments were studied as well as the concentrations of nutrients, which were variable in the different sites. Biodiversity was also investigated. A number of plant species collected there, was lower than that recorded by other authors due to the time of collection. Cover percent of each species was recorded in addition to biomasses which were also lower than those recorded formerly. Biomass of the emergent plants was the highest among other aquatic plants.

KEY WORDS : Marshes of Iraq, Aquatic plants, Vegetation and environmental factors.

INTRODUCTION

In their lower course the two great rivers the Tigris and the Euphrates create a vast network of wetlands, known as Mesopotamian marshes covering about 15000 sq. km. (Al-Hilli, 1977; Maltby, 1994; Nicholson and Clark, 2002; and Richardson, 2008). in the early 1970s,but the most recent estimates in December 2006 indicate that they reached 58% of their original size (UNEP, 2007).

Three marshlands are recognized, viz., Hor Al-Hammar in the south, Hor Al-Chibayish in the central area and Hor Al- Huawiza in the east. There are other small wetlands distributed, here and there, such as Al-Ghamoga, Al-Sanyia, Al-Saadia and Ibn-Najim marshes. Marshes of southern Iraq are the largest in the Middle East and Western Asia (Al-Hilli *et al.*,2008), Aquatic biodiversity of this ,once, vast wetland complex was converted to parched desert in the period between 1992 and 2003 due to discussion. After that time the area was refolded and most species are re-established.

The majority of aquatic plants especially submerged and floating taxa are affected by the physical and chemical properties of water as well as the concentration of nutrients. Emergent plants are affected by these characters in the sediments as well.

Previous studies of the area were focused on Al-Hammar marshland in particular. Little studies were concerns with Chibayish marshes, but there is no attention or publication about Huawiza marshes because of its neighborhood to the Iraqi-Iranian borders, the site that was dangerous and very difficult to be visited by researchers due to the continuous political problems between the two countries.

The present study aims at studying the environmental conditions of the three marshes and their influence on the biodiversity of this area during February 2008.

MATERIALS AND METHODS

Plants, water and sediments were collected in 5-19th of February 2008 from 13 stations Fig.1, two at Hor Al-Hammar (Al-Barga and Al- Kermashiya), two at Hor Al-Chibayish (Abu-Zerig and Al-Baghdadiyah) and eight at Hor Al-Huawiza (Al-Baidha, Al-Odhaim, Al-Soda North, Al-Soda South, Lisan Ojairdah, Majnoon, Umm Al-Niaaj and Umm Al-