

NIVEAUX DE CONTAMINATION PAR LES METAUX LOURDS DU COMPLEXE LACUSTRE « TONGA, OUBEIRA, ELMELLAH» DU PARC NATIONAL D'EL-KALA

Amel Bendjama

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Abstract : The aim of our study concerns the evaluation of levels of contamination by 9 heavy metals (Fe, Cu, Zn, Mn, Ni, Cr, Pb, Cd, Hg) in water, sediment and aquatic organisms within 3 wetland areas Tonga, Oubeira and Mellah in the National Park of El Kala. Lake El Mellah: water, sediment and bivalve "Ruditapes decussatus". Lake Tonga: water, sediment and eel "Anguilla anguilla". Lake Oubeira: water, sediment and mussel watch "Anodonta sp". In each area, two sampling stations were fixed. During the year 2006, 154 samplings were carried out. Statistical analysis (ANOVA and PPDS) of concentration of these 9 heavy metals at the level of water and sediment showed significant variation in time and space. In Lake Oubeira, waters are polluted by Fe, Cu, Mn, Ni, Pb, Cr, Cd, Hg. In Lake Mellah, levels of pollution by Fe, Mn, Ni, Cr, Pb, Cd, and Hg are higher than European standards. In Lake Tonga, 6 heavy metals (Fe, Mn, Ni, Cr, Pb, Cd) show high levels. Measurements of levels of heavy metals in sediment show higher values of : • Fe, Ni, Cr in Mellah, • Fe in Oubeira • Fe, Pb, Cd in Tonga. In aquatic organisms, levels of heavy metals in Anguilla anguilla from Lake Tonga and Ruditapes decussatus from Lake Mellah are very low, whereas very high in Anodonta Sp. from Lake Oubeira.

Keywords : contamination, heavy metals, sediment, water, Anguilla anguilla, Ruditapes decussatus, Anodonta sp, wetland areas, Lake Tonga, Lake Oubeira, Mellah Lagoon.