

***Nerium indicum miller* shrub as an accumulation of lead (pb) atoms in the Death Valley ecosystem in Behbahan, Iran**

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Abstract

Death Valley is located in the north of Behbahan city. The degree of water toxicity is able to cause lethal effects to human and animal particularly in the first 100 meters distance from the source of the spring. The least life is in this ecosystem. The current study intends to evaluate the accumulation ability of native aquatic plant, *Nerium indicum miller*, to stream contaminated. Since no tree existed or lived up to 1500 meters downwards especially during the origin of the spring, the investigation mainly focused on the presence and distribution of heavy metals in water, sediments and Plant species leaves of the single shrub of the Death Valley ecosystem and to find correlations this element among water, sediments and plant leaves ($BCFs$, and BCF_w). The concentration of heavy metals in the water was :Al>Fe>Zn>As>Cr>Ni>Sb>Cu>Pb>Mn>Cd>Co.

In sediments was as follows: Fe>Al>Pb>Zn>Mn>As>Cu>Cr>Ni>Cd>Co>Sb, and in leaves of the single shrub is as follows: Fe>Al>Pb>Ni>Cr>Cu>Mn>Zn>As>Sb>Co>Cd. The concentrations of [pb] in the water is 0.046mg/lit, in the soil is 1mg/kg and in the leaves of *nerium indicum miller* is 6.76 mg/kg. Comparing the concentrations of [pb] in the water, the soil and in the leaves of *nerium indicum miller* We conclude that the concentrations of [pb] is: [pb]_{plant} \cong 6.76 [pb]_{Sediments}, and [pb]_{plant} \cong 170 [pb]_{Water}

Keywords: Ecosystem, Death Valley, *Nerium indicum miller*, heavy metal, Behbahan, Iran.

Introduction

The so-called Death Valley and its stream preserve a unique ecosystem in southern of Iranian city of Behbahan. The least life is in this ecosystem due to natural minerals contaminated. But the same stream,