



An Assessment of Zinc Phytoremediation Potential of *Avicenia.marina* in Nayband Marine Coastal National Park Mangroves

**Mohammad Reza Samani¹, Hossein Zolgharnine¹, Ali Dadollahi Sohrab¹,
Soudabeh Koruri², Bita Archangi¹**

¹ Khorramshahr University of Marine Science and Technology, Khorramshahr, Iran

² Research Institute of Forests and Ranges, Tehran, Iran

Corresponding author: samani1365@gmail.com

Abstract:

Present study was done to assess the accumulation potential of Zn in *A. marina* in Nayband marine coastal national park mangroves. Existing mangroves suffer from Close proximity to assaluyeh industrial zone. Industrial effluents contain great amount of metals. They reserve in sediments after entering water bodies. These pollutants could absorb by root system of macrophyte plant. Sediment and leaves samples was collected from 3 different stations. The concentration of zinc (Zn) in surface sediments and *A. marina* leaves were determined using atomic absorption spectroscopy. The highest concentration of bio-accumulated Zn in *A. marina* was observed to be $30.9 \mu\text{g g}^{-1}$. the highest concentration of Zn was at station 3. High concentration of Zn in leaf tissue suggests that Zn can be filtered through bioaccumulation and move toward areal part. This species is a suitable candidate for implanting in polluted coastline.