

# HEAVY METAL LEVELS IN SEaweEDS AND MANGROVE OF KARACHI COAST

Monawwar Saleem, S.H.Niaz Rizvi, Sanober Kahkashan, Javed Aftab

National Institute of Oceanography, ST 47, Block 1, Clifton,  
Karachi, Pakistan. niopk@cubexs.net.pk

## ABSTRACT

The concentration of heavy metals (Cd, Cu, Cr, Zn, Ni) in the mangrove leaves and seaweed samples of the Karachi coast were determined during the present study. Higher accumulation of Cd (0.31 ppm dry weight) and Cr (6.15 ppm dry weight) were observed in mangrove leaves (*Avicennia marina*) from Baba Island (Karachi Harbour), while highest concentration of Cu (5.25 ppm dry weight) and Zn (23.34 ppm dry weight) in the mangrove leaves were recorded in the Kaemari backwater samples.

Amongst the seaweeds the highest accumulation of Cd (3.41 ppm dry weight) was recorded in *Halimena porphyroides* collected from the Buleji. From the seaweeds collected from Manora, *Padina povina* (3.11 ppm dry weight) reported the highest concentration of Cd. The lowest concentration of Cd (0.89 ppm dry weight) was recorded in *Caulerpa texifolia*. From the seaweeds collected from Manora, the highest accumulation of Zn (41 ppm dry weight), Cu (8.66 ppm dry weight), Ni (13.37 ppm dry weight) and Cr (6.88 ppm dry weight) was recorded in brown seaweed *Colpomenia sp.* The highest values of Cu (7.1 ppm dry weight), Zn (30 ppm dry weight), Cr (5.2 ppm dry weight) and Ni (12.23 ppm dry weight) were also recorded in *Colpomenia sp.* from the seaweed collected from the Buleji area.

**Key words** Arabian Sea, Karachi Harbour, Sindh, Heavy metals