



Phytochemical content and Heavy Metals levels in *Cystoseira Spicata* and *Cystoseira Compressa* from Annaggaza Seacoast

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ABSTRACT

In the present study, phytochemical screening and heavy metals levels analysis of two brown algae; *Cystoseira spicata* and *Cystoseira compressa* from Annaggaza sea coast, were presented. The phytochemical screening indicated the presence of quinines, proteins, diterpenes, phytosterols, alkaloids, carbohydrates, flavonoids, tannins, glycosides, phenols and saponins. Major and minor elements levels in both algae were also investigated. As denoted in previous studies, iron was detected as a major element in both algae. The elements levels in *C. spicata* were in the following order: Fe > Zn > Cu > Ni > Cd > Pb, while in *C. compressa* were Fe > Cu > Zn > Ni > Pb > Cd. In both algae, the levels of toxic metals had the similar order. According to our results, the accumulation of heavy metals in *C. spicata* was higher than in *C. compressa*.

Graphical Abstract

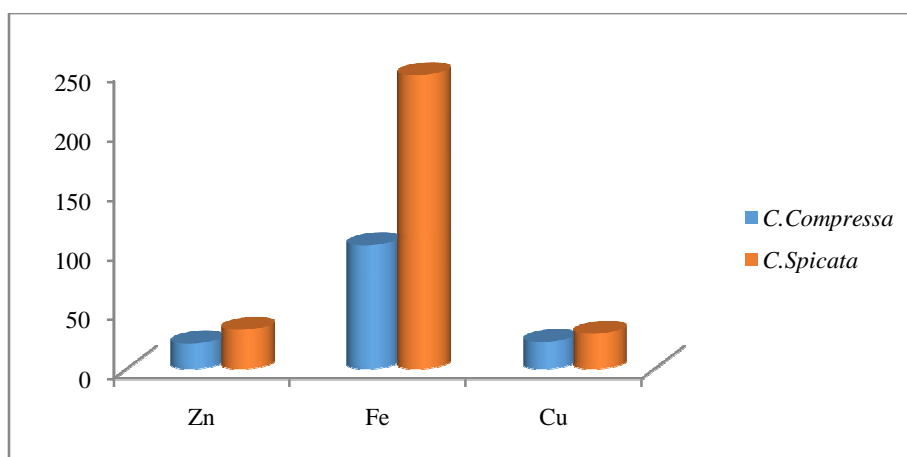


Figure 3. Basic nutrients Zn, Fe, Cu concentrations (ppm) in studied algae.

Keywords: Phytochemical Screening, *Cystoseira spicata*, *Cystoseira compressa*, Heavy metals.