*molecules*

MDPI

*Supplementary Material*

# Heavy metal depuration steps for *Gracilaria chilensis* in outdoor culture systems

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**Table S1.** Results of one-way ANOVA for percentage of depuration of heavy metals in *G. chilensis* biomass.

| | | DF | Sum Sq | Mean Sq | F | P value |
|---|---|---|---|---|---|---|
| As | Time (days of culture) | 2 | 56.6731 | 28.3365 | 3.229 | 0.11 |
| | Residuals | 6 | 52.6582 | | | |
| Zn | Time (days of culture) | 2 | 2806.81 | 1403.4 | 2.61 | 0.15 |
| | Residuals | 6 | 3226.69 | | | |
| Cu | Time (days of culture) | 2 | 447.25 | 223.625 | 3.514 | 0.09 |
| | Residuals | 6 | 381.823 | | | |
| Cr | Time (days of culture) | 2 | 3084.94 | 1542.47 | 0.2705 | 0.77 |
| | Residuals | 6 | 34217.4 | | | |
| Mo | Time (days of culture) | 2 | 9092.91 | 4546.46 | 4.034 | 0.07 |
| | Residuals | 6 | 6762.39 | | | |
| Pb | Time (days of culture) | 2 | 6386.85 | 3193.42 | 0.4246 | 0.67 |
| | Residuals | 6 | 45120.9 | | | |
| Se | Time (days of culture) | 2 | 3898.41 | 1949.2 | 0.6917 | 0.53 |
| | Residuals | 6 | 16908.8 | | | |
| V | Time (days of culture) | 2 | 1152.87 | 576.436 | 0.2434 | 0.79 |
| | Residuals | 6 | 14211.3 | | | |
| Fe | Time (days of culture) | 2 | 312.167 | 156.084 | 0.3476 | 0.71 |
| | Residuals | 6 | 2693.83 | | | |
| Cd | Time (days of culture) | 2 | 178.03 | 89.015 | 0.384 | 0.68 |
| | Residuals | 6 | 1390.76 | | | |
| Ni | Time (days of culture) | 2 | 3651.44 | 1825.72 | 5.644 | 0.04 |
| | Residuals | 6 | 1940.89 | | | |

**Table S2.** Physico–chemical parameters measured in the seawater during the experimental culture. T1, T2, and T3 correspond to 7, 14, and 21 days of culture after the first biomass submersion, respectively.

| | pH | ORP (mV) | DO (ppm) | Salinity (PSU) | Turbidity (FNU) | T (°C) | PAR (µmol $m^{-2}$ $s^{-1}$) |
|---|---|---|---|---|---|---|---|
| T1 | 8.23 | 242.5 | 4.68 | 24.93 | 3.7 | 14.37 | 97 |
| T2 | 8.10 | 191.9 | 5.39 | 25.63 | 4.2 | 13.35 | 105 |
| T3 | 8.11 | 190.4 | 5.38 | 25.04 | 4.1 | 13.52 | 100 |

ORP: oxido-reduction potential, DO: dissolved oxygen, PAR: Photosynthetically Active Radiation.

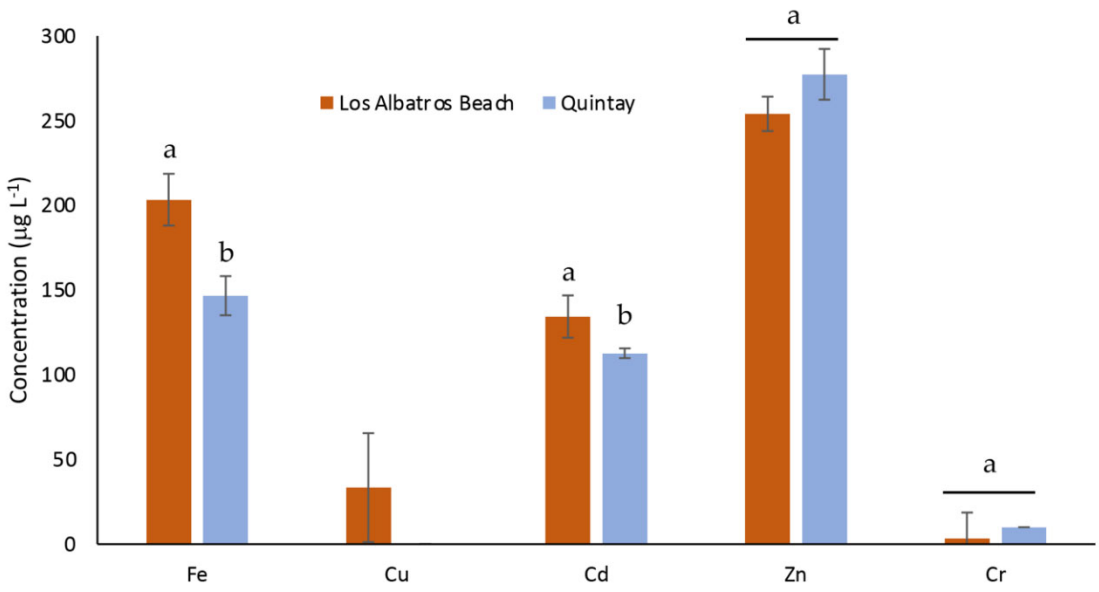


**Figure S1**. Concentration of some heavy metals studied in the seawater from Los Albatros Beach and Quintay. Bars represent mean ± SD (n= 3). Identical letters indicate no significant difference ($P > 0.05$). (Limit of detection: Fe = 100 µg $L^{-1}$, Cu = 40 µg $L^{-1}$, Cd = 20 µg $L^{-1}$, Zn = 50 µg $L^{-1}$, Cr = 10 µg $L^{-1}$).