

## IS GLUTATHIONE TRANSFERASE (GST) ACTIVITY IN *POSIDONIA OCEANICA* A STRESS RESPONSE TO MERCURY EXPOSURE?

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### ABSTRACT

Today, efficient monitoring of the environment is increasingly depend on the use of bio-indicator species. Marine phanerogams, and in particular *Posidonia oceanica*, would appear to be potentially valuable bioindicators of metal pollutants. Although correlations have been found between the mercury levels accumulated in the plant tissue and the concentrations of this metal in the water column, it would be of interest to identify early signs of the stress response induced by this xenobiotic. Thus, mercury concentrations and GST activity in *Posidonia oceanica* (L.) Delile from contaminated and pristine sites were measured. These results demonstrate that an increase in mercury level is correlated with an increase in GST activity, particularly in the sheaths of *P. oceanica* shoots. The sites contaminated by mercury were also those sites for which the highest enzyme activity was recorded. An even better correlation was found between the mercury levels and GST activity, if a 2 mo lag in the effect of mercury on GST activity is assumed.