



***Posidonia oceanica*: a Biological Indicator of Past and Present Mercury Contamination in the Mediterranean Sea**

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ABSTRACT

*Concentrations of mercury were measured in various tissues of *Posidonia oceanica* seagrass at three sites presenting distinct degrees of human activity. The accumulation of mercury differed according to the tissue examined and the level of contamination of the site. Mercury concentrations recorded at Calvi ranged from 10.0 ng g⁻¹ dry weight in blades to 30.1 ng g⁻¹ in rhizomes, whereas at Marseilles-Cortiou, the range was between 52.3 ng g⁻¹ in rhizomes and 176.5 ng g⁻¹ in blades. The use of lepidochronology, a technique for dating the dead sheaths and rhizomes of *P. oceanica*, rendered it possible not only to determine the present level of contamination at each site, but also to reconstitute the pattern of change in the degree of contamination of the environment over a period of twenty years. *P. oceanica* is considered to be an accurate bioindicator of past and present mercury contamination. © 1998 Elsevier Science Ltd. All rights reserved*

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