

**Evaluation of the metallic contamination along the Corsican coastline using
Posidonia oceanica meadow (Mediterranean)**

Lafabrie Céline*¹, Pergent-Martini Christine*², Pergent Gérard*³

* University of Corsica, Faculty of Sciences, Equipe Ecosystèmes Littoraux, BP 52, 20250 Corte, France – Phone: +33 (0)4 95 45 00 75 / Fax: +33 (0)4 95 46 24 41

¹lafabrie@univ-corse.fr ; ²pmartini@univ-corse.fr ; ³pergent@univ-corse.fr

The MONIQUA Program, set up within the framework of the INTERREG IIIA Convention initiated together by Corsica, Sardinia and Tuscany, focuses on the biomonitoring of metallic contamination in the Mediterranean Sea using bioindicator species. The aim of this study is to determine the metallic concentrations recorded in *Posidonia oceanica* tissues in order to establish a pattern of the metallic contamination along the Corsican coastline.

To that effect, foliar shoots of *Posidonia oceanica* were collected on sixteen sites located at a same depth (10±1m) off the Corsican coastline during the summer of 2005. The concentrations of six trace metals (Cd, Co, Cr, Hg, Ni, Pb) were measured in the blades and the sheaths of the leaves by spectrometry.

The results show that the metal concentrations recorded in the tissues of *Posidonia oceanica* generally fall within the range of the lowest values available in the literature and may be considered as normal levels of the Mediterranean area. However, the site of Canari can be distinguished from the others by the high concentrations recorded in Co, Cr and Ni; probably due to the presence of a previous mine of asbestos close to that site.

This study demonstrates that *Posidonia oceanica* leaves may be a good integrator of water quality and could be used as part of monitoring networks all over the Mediterranean basin.