

## **Value and Use of *Posidonia oceanica* as a Biological Indicator**

**Pergent-Martini Christine, Pergent Gérard,  
Fernandez Catherine and Ferrat Lila**

*Equipe « Ecosystèmes Littoraux », Faculté des Sciences, Université de Corse,  
20250 Corte, France*

### **Abstract**

*Posidonia oceanica*, an endemic Mediterranean marine phanerogam, constitutes the fundamental basis of coastal water richness. The use of bioindicators has been recognised as one of the most effective tools to investigate a vast array of applied ecological research fields, and in particular the coastal environment of the Mediterranean. *Posidonia oceanica* meadows, which are very widespread along the Mediterranean coast, are particularly sensitive to both pollution and the impact of human activities (and fixed to the bottom. As a result, their presence and vitality (or regression as shown by dead matte) are a good indication of the quality of the overlying waters. Several descriptors have already been proposed to characterize the vitality of a meadow and assess the impact of a variety of forms of degeneration. Other such descriptors still require further study in order to fully exploit their possible significance and/or to develop a standard method of investigation. The use of *Posidonia oceanica* as a biological indicator of chemical pollution has been developed progressively over the past twenty or so years. The technique of lepidochronology has made *Posidonia oceanica* a biological « recorder », capable of memorizing trace metal contents over several decades.