

Contaminated Soil Biomonitoring: Environmental Risk Assessment (ERA) in invertebrate communities (SOILBIOMONITOR)

Maria Carme Riva

Centre per la Recerca i Innovació en Toxicologia (CRIT) - Universitat Politècnica de Catalunya (UPC)

ABSTRACT

Available methods for environmental risk assessment (ERA) of potentially contaminated soils suffer from a lack of realism due to difficulties in establishing reliable levels of exposure to organisms and in identifying representative biological responses in laboratory tests. There is an urgent need to develop methods capable of providing quick, reliable, representative, and useful information to help in the quality assessment of contaminated soils.

Our efforts are focused in developing new protocols for assessing the environmental quality of potentially contaminated soils, based on the integrated and comprehensive experimental study of their effects on living organisms.

Current studies of our group deal with the application of alternative methods to assess behavioral responses of soil organisms, the use of ecotoxicity assays to monitor the degradation of pesticides in soils and the integrated analysis of soil pollutants to both terrestrial and aquatic organisms.